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## Farm Department.

Conducted by J. H. Brown, who lives on his farm at Climax, Mich., which is conducted as the Michigan Farmer Experiment Farm. All correspondence for this department should be sent to Climax.

### A CHEAP, HANDY BARN.

A friend asks me to design him a barn 24x42 feet in size and with room for storage of hay in the second story. He intends the barn for sheep. He asks that the plan be made plain enough so that his carpenter can not fail to understand it. Moderate cost is an essential. He wishes to cover with shingles for appearance and warmth for February lambs. I have taken the liberty to alter his proposed dimensions somewhat, as 42 feet requires either three spaces of 14 feet and four bents or five bents with spaces of but 10 1-2 feet. Either distance is objectionable; the 14-foot because of the long floor-joists and rafter plates, and the 10 1-2-foot because it is as much labor to build, nearly as though it was 12 feet and the barn 48 in length. By making the dimensions 24x48 feet there is but one length of joist to get, 12-foot. I have tried to make this plan simple enough to be understood by a bright 14-year-old boy. There is no mortising or boring on it, and everything goes together with nails and spikes. It is amply strong and will stand up plumb and square as long as the stones are beneath the posts and the shingles renewed on the roof.

Fig. 1 is an inside bent of the frame, all ready for the floor-joists to be laid. It is in cross section and shows the box-plates, A, sawn across. The posts are 6x6, either 14 or 16 feet long, as the hay storage demands. From the stone to the top of joist bearer is 8 feet. The stone being one foot, gives a clearance of 8 feet in the lower story. To understand clearly how the joist-bearers are put in and how the braces go between them, study fig. 2, which shows the two joist-bearers, as you would see them from above.

A-A-A are the ends of posts (although outer posts go on up to plate) the posts being 6x6 and notched for the joist-bearers which are 2x8, there is just 4 inches of space between them. Note how the brace, fig. 3, is made. The brace is made of stuff 3x6, and cut away so that the tongue, 4 inches thick, passes up between the joist-bearers and spikes through them, holding securely, while spikes are also driven up through the shoulders into the bottom of the joist-bearers. This makes a very solid arrangement. The lower end of brace should have a small seat cut for it in the post, say 1-2 inch. This seat is cut with sad adze. These braces being heavy stuff are great supports to the joist-bearers. Fig. 4 shows the floor joist, 2x8.

The box plate A, fig. 1, (also enlarged at A, in middle space) is easily understood, being simply two pieces of 2x8 spiked in the recess in the top end

of the post and one laid on the top, as shown in fig. 1. On this plate rest the rafters. Select extra good 2x8s for the top of plate or use 2x12 in this place if your roof is apt to have much weight of snow lie on it. Now look for a moment at fig. 4 to see how the braces go up into the angle formed by the box plate, and spike solidly thereto. Do not make the mistake of using your heaviest joist for the under one in this plate. The weight is well carried by the braces; it is the thrust of the roof that you must plan to resist.

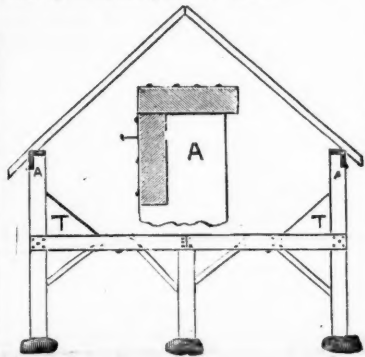


FIG. 1.

Study fig. 1 again. The thrust of the rafters is taken by the tie-rods, T-T. These are 3-4-in. iron rods with thread and nuts on ends, and while upper end passes through post and has a large washer to keep it from sinking into the wood, the lower end passes through a 2-inch block fitted between the joist-bearers and shown at C, fig. 2. This block is shaped like a key-stone and fits between the ends of the braces and is also firmly spiked through the joist-bearers. Thus there is no tie across the barn to obstruct the hay carrier or for hay to settle on. Do not, however, put on rafters before you have the tie-rods in place, and if you can not readily procure the 3-4 rods get a size larger.

Note at fig. 2 the piece, D. This is 6 feet long, 2x8, firmly spiked to the joist-bearers, and is to add strength to your tie. Do not omit this. The floor



FIG. 2.

joists may as well be notched at the ends, to save space, three inches, leaving 5 inches of wood. To prevent splitting, nail on the blocks of 1x4 represented in cut.

Look at fig. 5 and see how rafters are put up on front of barn to form a protecting hood and also support for hay track on which runs carrier. The cripples, C, prevent the thrust being sustained by the one outer rafter alone and the sheeting should be well nailed, and along the top may well be doubled, that is, laid solid. This way of putting on an over-hang is very strong and costs little labor. The lower ends of rafters are shown reaching only to the plate; they really come below it two feet.

The rafters are 17 1-2 feet long down to edge of plate, so they will need to be of good stuff, and 2x6 is none too

large. They may be made of 20-foot stuff, or if that is not convenient, 18-foot will answer, and the eaves projection be added by splicing on 2 feet, which is little labor and unnoticed in the completed building. The pitch is half, that is, the rise of roof is half the distance across the building. This pitch is advised because of its strength and because of the advantage in using a hay carrier on a roof of this pitch.

Fig. 6 shows how the end bents are framed and sided up. The doorway reaches from mow floor to roof and the lower doors are cut in halves, the upper half hinged at top edge and raising up so as to admit little or much light and air, while the lower door swings as common doors do and restrains the sheep.

Champaign Co., Ohio. JOS. E. WING.

For The Michigan Farmer.  
WHEAT RAISING AND COMMERCIAL FERTILIZERS.

When the price of wheat fell below a dollar a bushel many farmers thought that it could not be raised with



FIG. 3.

any profit whatever. Later, when it went far below the dollar mark, many quit sowing, saying that at 50 to 65 cents, and unless the crop was an excellent one, it was a losing venture.

Perhaps such was the case, but it must be remembered that, with the machinery that we have at the present day, wheat can be raised much cheaper now. Then, too, there is another item that many do not take into consideration, and that is the straw.

The day of 50 to 60 cent wheat is, however, past for the present, and no doubt for many years. The price of wheat is not apt to be as low during

the next decade as it has been during recent years. What wheat will be worth next threshing time is rather difficult to answer, with any degree of certainty, but from the trend of the market of late, one would suppose that it would be near the dollar mark. One thing is certain, that it will not be as low as for the past few years.

While the fly has, in certain sections, been injurious to wheat of late, in others it has done little or no damage for years. Where it has done much damage of late, of course, it is policy to sow late, but where it has not, I believe that earlier sowing will bring better results.

The ground should be plowed early and got in order, so that when sowing time arrives it will be properly fitted for seeding. Then again, by plowing early, immediately harrowing and roll-

ing, the ground holds the moisture. Should the fall be extremely dry there would perhaps not be sufficient moisture to start the grain. In the majority of cases, however, there is little danger in drilling in the seed when the ground has been treated in this manner. While on top the earth is dry, moisture has gathered beneath the surface sufficient to germinate and bring the grain up.

By plowing early much more can be accomplished in a day, than by waiting until the ground becomes hard and dry, as it is almost sure to do later in the season. When plowing is delayed until in September the ground breaks up in much larger chunks, taking at least twice the amount of labor to get it in condition for the drill.

Here in Southern Ohio sowing has often been delayed until late in October, because some years ago the fly was doing considerable damage. It is safe to say that ten bushels of wheat has been lost by late sowing and winter killing to one by early sowing and fly eaten. In the latitude of Southern Michigan, where the fly has done no damage of late, it would perhaps be best to sow about the middle of September. There is about ten days' difference with regard to the work of the fly between Southern Ohio and Southern Michigan. Michigan, of course, being farther north can sow that much earlier.

Last year a few farmers, bolder than the rest, sowed from September 10th to 15th. The old wheat raisers advised them to keep the seed out of the ground, and that the fly would not leave a vestige of it. They went on sowing, however, and the result was an excellent crop. Those that sowed later last year had nearly as good a crop. The year previous such was not the case, for the early sown had decidedly the preference.

In summing up his experience, as a wheat raiser, one man who has raised it almost as many years as there are pounds in a bushel, said to the writer: "I would rather sow early and let the fly eat it, than to sow late and get no wheat." He meant, of course, that he would rather sow early and stand the chances of the fly injuring it to some extent, than to sow late and run the risk of it winter killing, etc. This man was known (he is now dead) as one of the most successful wheat raisers of the Ohio Valley. He seldom failed in raising a large crop of wheat. Throughout his neighborhood many had adopted the plan of sowing when he did.

Certain localities are infested by the fly, but in my travels (and I travel from one to two thousand miles during October and November of each year), I have failed to note where they have done any serious damage to a tract of any extent. It is true that in a few places they have done some damage, but nowhere have they been seen in alarming numbers. Where they have been doing damage during the past two or three years it is policy to wait until late before sowing. Otherwise I be-



Here that sowing can be done much earlier, to advantage.

#### COMMERCIAL FERTILIZERS.

The use of commercial fertilizer has greatly increased during recent years. There is no question whatever but that it is beneficial on nearly all land. Its use, however, is especially recommended on sandy land or any soil of a light nature. On heavy clay, perhaps, it does little good. While the pure bone has lasting qualities far superior to all other grades, and its effect will be seen on the grass for several years, yet I have seen it tested side by side with a cheap grade fertilizer, costing \$18 per ton, and the cheap goods yielded the best returns. For three years this has been done and always in favor of the cheap goods.

Any one doubting the wisdom of using a fertilizer for wheat on poor soil, need only go a few rounds with the fertilizer shut off to be convinced that it does pay. I have seen this experiment tried, and where no fertilizer was used the wheat would not make over eight bushels to the acre. Where the fertilizer had been used, about two hundred pounds of cheap goods to the acre, the yield was more than double, and a good stand of grass was secured. Where no fertilizer was used the stand of grass was by no means as good.



FIG. 4.

The safest plan to follow in the purchase of fertilizer, is to note the kind used by your neighbors on the same kind of soil as yours, watching the results, and making your purchases accordingly. Of course, like everything else, there are years when a fertilizer will not benefit crops to much extent. In extremely dry seasons it is probably a waste of time and money to use it on any soil. But under ordinary circumstances it pays, and to reap the benefit it is policy to use it every year, although now and then the benefit may not be equal to the money spent. But, for a term of years, the user of fertilizer will come out financially ahead of those who give the subject no attention.

The average yield of wheat is yearly being brought up, from the fact that farmers are learning to put their ground in better condition for the seed. There is no crop that is more certain of success, as past experience proves. With the exception of the almost total failure of 1884, there has been fairly good crops, generally speaking, ever since.

Gallia Co., Ohio. ARTHUR R. HARDING.

(In traveling through this State we find many farmers who have, in recent years, tried to sow wheat earlier. In many cases this has produced good results, and they follow the practice until the fly "gets in its work," and late sowing is again necessitated.)

There is no doubt that many of us sow wheat too late in the season to stand the rigorous winter climate we generally anticipate and eventually secure. But when shall we sow?

This is a question often asked, and who can answer it? So much depends on the season, moisture, temperature, and the time of early hard frosts.

On wheat ground that has grown no wheat the previous season, with a well prepared seed bed and plenty of moisture, we should sow, in this latitude (42 to 43 degrees), from Sept. 10 to 15. This, providing there was no trouble from insects in the neighborhood the previous season.

On just such ground as the above, and under the same conditions, late sown wheat will often yield just as well as early sown, as friend Harding has stated.

But it is the poorly-prepared seed bed, ground that has been "stubbled in," and often corn ground, that needs the earliest seeding. The poorly-prepared stubble ground can seldom be sown early because there is almost certain to be more or less insect depredation.

Corn ground is seldom seeded before the corn is cut, shocked and the ground harrowed. It usually takes several days to cut a large field, and a week's time makes considerable difference in the growth of plants during the late fall months.

If corn is late in ripening, as the prospect indicates this season, we think it might pay to sow wheat in the standing corn. On clean corn ground with a one-horse cultivator, passing once in a row, followed by a five-hoe, one-horse grain drill, a good job in seeding may be quickly and easily accomplished before cutting the corn.

The Hessian fly did very little dam-

age in this section last season, and many will sow earlier than ever before. Some are even talking of sowing during the first six days in September.

Twenty-four hours will often make considerable difference in the destructive work of this insect pest. The fly seems to delight in working over young wheat plants at a certain stage of their growth, providing the weather is favorable.

When the plant is large enough to throw out its strap leaf the fly deposits its eggs on the upper surface. Within a few days the larvae hatch out and

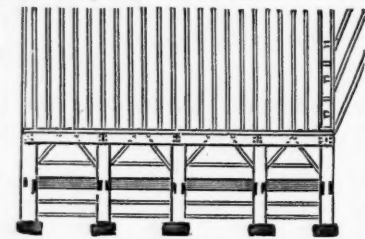


FIG. 5.

each one works down the leaf to the base of the sheath. Here it attaches itself, head downwards, close to the stalk, and assiduously proceeds to suck out the life sap of the plant.

Many farmers wait until a hard frost occurs before commencing to sow, as it is known that there is far less danger from the fly afterwards. But it does not always pay to wait for frosts, especially if the after-growing season should be short, and who knows what its duration may be?

The best plan is to sow less ground, if necessary in order to prepare a compact, well-fined and smooth seed bed. Do not stubble in wheat after wheat if it can be prevented. Top dress the ground with all the fine manure you can scrape up. Sow from Sept. 10 to 20, and take your chances.

As to the use of commercial fertilizers, we cannot agree with all that friend Harding says. There are localities in this State where great results have been secured, but the continued use of commercial fertilizers in our own section has produced nothing but disappointment and helped to deplete numerous pocketbooks. We have been shown field after field where tests were made for wheat, corn, oats and potatoes, and not even a magnifying glass could detect any difference in plant growth, and the resultant crops thereof.

In a few cases we have seen a remarkable benefit from using commercial fertilizers on wheat and potatoes. We have carefully made tests on corn and potatoes on our own farm, and never saw any greater growth or yield in that, or the two following seasons' crops.

However, we are not willing to quit testing along this line, and expect to again try one or more brands of goods on our wheat ground. We have a new drill, with a complete fertilizer attachment, and shall carefully follow the advice of the most enthusiastic advocates of these goods, sowing from 200 pounds upwards to the acre. A full report of results will be given in due time. Have not some brother farmers who use commercial fertilizers some good advice to give us before sowing?—Ed.)

For the Michigan Farmer.

#### PUTTING IN WHEAT.

The period approaches when the annual task of putting in the great winter wheat crop of the country will be getting under way on most of the farms of the central and western states. It is therefore quite timely to call attention to a few of the methods which experience has shown to be followed by the best results in practice, for there are always plenty of farmers who neglect well established truths, even though aware of their existence, while others may have failed from inability to follow principles with which they chanced to be unfamiliar.

The seed itself is the first essential to success, and it should be selected with the greatest care. No new and untried variety may be safely used for the real crop until it has been thoroughly tested in a smaller way on your own land or in your immediate vicinity. Change of seed by procuring from a different locality, especially from a more northern latitude or from a different soil, is a well established and useful practice, which might be followed at intervals of from three to five years. The preparation of the seed should never be trusted to unknown parties, but should have the direct supervision of the person who is to use the seed, or of some one in whom he may rea-

sonably place full confidence. Only the plumpest and best grain should be reserved for seed, and that should be thoroughly cleaned by hand, imperfect grains and weed-seed being rigorously excluded by repeated action of fan and screen. All attempts at cleaning smutty seed are worse than useless, as the spores will adhere to the grains in spite of all efforts to prevent this. For this reason wheat for seed should never be used if the thresher or fanning mill has previously been used for infected grain, and if any suspicion exists, recourse should be had to the well-known "blue-stone" or hot water treatment, one or the other, so as to ensure absolute protection.

The time of plowing must depend largely on the character of the preceding crop, but on general principles, early plowing—the earlier the better—is most satisfactory. During the interval between plowing and sowing, weeds must not be allowed to secure a hold in the field, and an occasional harrowing will not only prevent this difficulty, but also materially improve the condition of the seed-bed, on the character of which results and yield so largely depend. Though, as compared to other crops, wheat is a shallow feeder, it nevertheless abundantly repays for the labor of deep and thorough pulverization. A deep, well pulverized seed-bed, "firmed" by the harrow, and with a thoroughly mellow surface, are the soil conditions most conducive to satisfactory returns.

The matter of fertilizing is next in order. The greater part of the winter wheat area of the country lies within the prairie states, and heavy fertilizing is not yet the practice. This is particularly true as to the use of nitrogenous manures; the method of plowing under

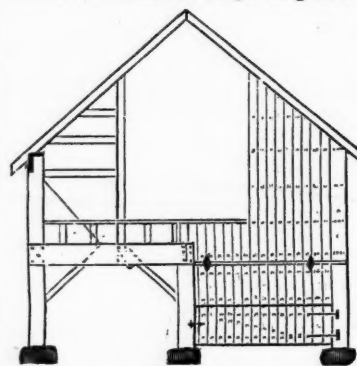


FIG. 6.

clover sod is almost invariably practiced, hence it is seldom necessary to apply nitrogen in the form of fertilizers. Moderate applications of mineral plant-food (potash and phosphoric acid) are, however, almost indispensable to the production of satisfactory crops.

If a mixed fertilizer is to be used, as is the more common practice, the difficulty will be that most mixtures on the market contain a disproportion of phosphoric acid, more than the crop can possibly utilize and more than can be economically purchased for any other effect than that of actual plant-food. The excess of phosphoric acid is accompanied by a proportionate deficiency in potash. These two errors of composition should be rigorously guarded against, and a fertilizer containing approximately 6 per cent of phosphoric acid and 4 per cent of potash should be selected and insisted on. If a clover sod has not been recently turned under, nor a good application of manure made to the preceding crop, about 3 per cent of nitrogen should also be provided in the material used, and an application of 300 to 500 pounds per acre should on an average yield satisfactory results.

If the purchase of the raw materials and home mixing is to be tried, the following materials would prove most desirable: 150 pounds of raw bone-meal and 50 pounds of muriate of potash. This application should show most satisfactorily on the subsequent crop of hay.

Early sowing should be avoided, and middle September to middle October will best meet average conditions. Drilling with the press drill, which also distributes the fertilizer, is the desirable method of putting in, and experience has shown that five pecks of seed per acre will return better yields than either lighter or heavier rates of seeding.

H. E. STOCKBRIDGE.

Special Excursion to Niagara Falls & Thousand Islands via Wabash, Sept. 10, 1897.

Fare only \$3.50 Detroit to Niagara Falls and return. Tickets good for return on any regular train within five days. Train will leave Wabash Union Station 11 p. m. For further information and tickets call at Wabash City Ticket Office, 9 Fort Street West, and Union Station.

For the Michigan Farmer.

#### DAWSON'S GOLDEN CHAFF WHEAT.

In accordance with your request I send you a short account of Dawson's Golden Chaff wheat.

It originated in Ontario, near Paris, a Mr. Dawson finding a stool of wheat in a spot where all other wheat was winter killed. He saved it, propagated it, and finding it hardy and productive sent some to the Ontario Experimental Station at Guelph. After growing it along with many other varieties it was pronounced an excellent variety both for productiveness and milling qualities.

The Michigan Experimental Station sent for a quantity and distributed it to parties around the State, among which the writer was one of the favored ones.

The first year we had 25 bushels, which was drilled in on a field, a part of which was a cedar swamp. It stood the winter and produced 33 bushels per acre, which, through the recommendation of the College, was sent into twelve counties in this State. I have heard from some of the parties, and they report favorable results.

Arenac County.

PETER GILBERT.

#### POULTRY MANURE AS A FERTILIZER.

To the Editor of The Michigan Farmer:

Will you be kind enough to give me a formula for making a fertilizer to use in my combined grain drill. I now have about two cubic yards of hen droppings. I can procure some wood ashes. Would lime (slacked) be suitable? Please name proportions of the parts to be used and the amount to be sown per acre. Which is the more desirable and beneficial to sow with, phosphate grain drill or broadcast as top dressing?

H. G. SELLMAN.

Your hen manure, if it has been kept dry, will give a good basis for a fertilizer. It must be mixed with something, or it will be too strong to come in contact with growing plants. The cheapest material to use with it is dry earth well pulverized. You also have, or can procure wood ashes. A good mixture would be one part hen manure, two parts ashes, and two parts fine dry earth or road dust. The materials should be dry, and worked together until thoroughly mixed and well pulverized, so it will run through your drill. As to amount per acre, about 500 pounds will give good results. We have seen double the quantity used. As to your question regarding broadcasting or sowing it with a drill, it will depend upon the crop. You want the fertilizer where the growing plant can reach it. For such crops as corn or potatoes the more it is concentrated in the hills the better for the crop. For grain the best method is to sow with a drill, because it will be in the best place to benefit the young plants. Of course, in top-dressing, there is no other method to follow but broadcasting. You do not say what crop you intend to use the fertilizer on, or anything about your soil. We reason from your locality that you have a pretty strong soil, probably a gravelly loam with some clay in it.

One word about hen manure: It should be kept in a dry place, and if a few shovelful of dry earth or land plaster be thrown over it every time fresh manure is added to the pile, your fertilizer will be much more valuable than if the manure is exposed to the air.

R. G.

The government crop report estimates the crop of wheat at 460,000,000 bushels, or about a normal crop. Estimates on the visible supply made Monday show a decrease of 974,000 bushels in wheat, 572 bushels in corn, 1,269,000 in oats, 151,000 in rye, and 356,000 in barley. It is estimated also that there is only about 20,000,000 bushels in carriers' hands to-day.

#### A Handy Wagon.

Any farmer who has once used a low-down, handy wagon will tell you it is the most convenient implement ever used on the farm. By the use of low-down wheels the wagon for loading purposes has been brought to a convenient height. The broad-tired wheel will not sink in the soil like an ordinary wheel. It is therefore of great service in meadows, corn or small grain fields. Many farmers say that they could not get along without it. Read the following "handwriting on the wall": "Certain evil-minded persons who make 'handy wagons' of wood, have procured an old electrotrope of ours and advertise it as a production of their own, but advise people not to buy 'steel wagons.' Of course they do not sell any, and do not expect to, as they do not make any, but hate to lay down to our 'all steel handy wagons.' They know full well that the day is past for people to buy wood wagons or wheels, which will rot and dry out. All the wagons or wheels we sell are fully warranted and we make good any defective goods we sell, as per our guarantee." So says the Havana Metal Wheel Co., which makes the very best wagon advertised in the FARMER. Their address is Havana, Ill.



## Livestock.

### PROFITS IN SHEEP.

The profits on our sheep are governed by the cost of production, by the use of the fodders and straw, the coarse feed, which will not bring anything in the markets, especially corn-fodder, and by the cheapness of grain. We can make the fleece pay the keeping of the sheep for one year, on good fine-wooled sheep, and from these calculations it would leave the owner the lambs and manure for his profits.

One hundred Merino sheep given abundance of bedding, will, between December 1 and May 1, make at least forty two-horse loads of manure. I scarcely need to say that both the summer and winter manure of the sheep is far more valuable than that of the horse or cow. Its manure on high-priced land that requires fertilizers cannot be estimated at less than fifty cents per head per annum, and I should be inclined to put it still higher. The profit increases just as the market value of land and the cost of keeping decreases. The western grower gets the lamb and about one-half of the fleece as the profit on each sheep. The Texan grower gets the lamb and about three-quarters of the fleece, and so on. The prices of lambs of different blood, in different localities, vary and will not admit of a uniform estimate, but it does not anywhere cost more to raise a full-blood than a grade lamb. Good grade Merinos have averaged about two dollars per head in the fall for the last few years. Estimating eighty per cent of lambs on an average the country over, and fifty cents a head for manure, each sheep would thus average \$2.10 per head, and 80 per cent would make \$2.50 per head. According to this calculation land worth \$50 per acre would give the owner a profit of a little over six per cent, if it would support a little over one and three-fifths sheep per acre, and that would be indifferent grazing land, where the domesticated grasses are grown, and under a proper system of winter keeping, which would not support three sheep to the acre.

I have not taken into consideration the growth of the young sheep and the advance in price of the fat sheep. I think we could raise sheep just for mutton alone, not making any account of the fleece, and have as much profit as we could on any other kind of stock. Sheep do not require such high fences as cattle do. Hogs require more of a money crop to produce the food. The prices of horses are so low that they cannot compete at all, and a sheep will make just as large a gain as a steer will in proportion to the feed, and will pay just as much for the food consumed (fed intelligently) as any other stock that we have in America. A little of the right kind of legislation would cause all of our beautiful hill pastures in Ohio to be dotted with sheep, and also increase the per cent of profits, and we could supply our brother farmers and city cousins with a first-class suit of clothes made from American-grown wool, so that he would not have to have holes in his coat-tail made for the purpose of letting the shoddy fall out, and would be comfortable for him to sit down.

Ohio.

R. S. FORSMAN.

### THE DUAL-PURPOSE COW.

In a recent issue of The Farmer we printed an article on the general purpose cow, and the conclusions arrived at are fully sustained by the following, from J. McLain Smith, of Ohio, which appeared in the last issue of the Breeders' Gazette, referring to several sales of Red Polls in England at very high prices:

"But the important matter is that the sale indicates confidence in the future of the breed by the English people themselves. This confidence, like the recent wakening of the Short-horn society to the importance of the milking quality in their cows, shows that practical farmers everywhere begin to realize that the strictly beef animal is out of place on high-priced land, and must give way sooner or later to one of dual capacity.

"It is absurd to talk of growing beef in England in competition with Argen-

tina and Australia or our own great ranges with cows that merely grow a calf each year. And it is equally absurd to attempt such production with the strictly dairy breeds. In the first case the cost of the product is too great; in the second case the quality is too poor. They must use a general-purpose cow—a cow capable of producing a first-class steer and at the same time milk enough to feed it and pay a profit on her own keep, or quit the business. And what is true of England in this regard is equally true of our eastern and central States.

"So far there are only two breeds which have shown the capacity to produce cows of this sort with any certainty—the Short-horns and Red Polls. Other breeds occasionally produce one, but it is not a breed characteristic; and no one desiring such cows, and fully informed, would choose any other strain than one of the two named. The Dexter Kerrys might be included in the list for England, but they are too small to suit our people or supply our wants. The Devons under some conditions might answer, but their milking qualities are uncertain, and they are slow in development.

"On the whole the two breeds named are the best for the purpose, and in their different characters meet all requirements. Their breeders have in fact a monopoly of this great and increasing demand if they have only wit enough to breed strictly in conformity with it. This requires not necessarily a very large animal—they may be of different sizes to meet different requirements—but the cows must be good, steady milkers, giving not less than 5,000 lbs. a year at maturity, with 3.5 per cent of fat, and they must be capable of producing a calf that will mature quickly, feed profitably, and produce first-class beef. The demand for such cows, and for bulls capable of producing them, is likely to increase rapidly in the near future. These cows and these bulls, as I believe, are more frequently found among the Short-horns and Red Polls than in any other breed. It rests with the present generation of breeders, and the societies having their interests in charge, to say whether this dual capacity shall be strengthened and become more general or whether it shall be weakened and gradually bred out."

While it is certain that the special cow will be used for a special purpose as heretofore, the farmer who follows mixed husbandry and wants cattle to feed as well as milk, is changing back to the breeds which have two ends to them instead of one, as is the case with the special dairy cow. In the good old days the Short-horn and the Devon filled the requirements of the average farmer. The latter breed has gradually died out and been replaced by a different class of cattle. Its old place can be filled to advantage with the Red Polls, which are, practically, hornless Devons, with a better development of the milking quality. If the breed feeds as well as the Devon, and all reports from abroad and in this country sustain the belief that they will, there are splendid opportunities for the breed in the future in such States as Michigan, Ohio, New York, and Pennsylvania. Mr. Smith's opinion as to the future of the Short-horn and the Red Polls seems to be reasonable and logical.

### SMITHFIELD HAMS.

The popularity achieved by Smithfield hams will make the following description of how they are cured of interest to many of our readers:

1. The hams are placed in a large tray of fine salt. Then the flesh surface is sprinkled with finely ground saltpeter until the hams are as white as though covered by a moderate frost; or, say, use three to four pounds of the powdered saltpeter to 1,000 pounds of hams.

2. After applying the saltpeter, immediately salt with fine salt, covering well the entire surface. Now pack the hams in bulk, but not on piles more than three feet high. In ordinary weather the hams should remain thus three days.

3. Then break bulk and resalt with the fine salt. The hams thus salted and resalted should now remain in salt in bulk one day for each and every pound each ham weighs; that is, a two-pound ham should remain two days, and in such proportion of time for larger and smaller sizes.

4. Next you wash with tepid water until the hams are thoroughly cleaned,

and after partially drying, rub the entire surface with finely ground black pepper.

5. Now the hams should be hung up in the smokehouse, and this important operation be begun. The smoking should be very gradually and slowly done, lasting thirty or forty days (most packers using green hickory or red oak to smoke with).

6. After the hams are cured and smoked they should be re-peppered to guard against vermin, and then bagged. These hams improve with age, and may be considered perfect at about one year old.

The conclusion naturally to be drawn from these facts is that any ham treated as these packers treat theirs would be better than the average. The Smithfield ham, however, owes its popularity to its peculiar flavor, and this flavor is not due to the manner in which it is cured, else any ham cured in the same manner would rival it. It does not owe its flavor to the manner of feeding altogether, else hogs from other parts of the country could be brought here and perfected. The necessary things in the opinion of the producers, may then be summed up as follows:

- (1). A slow growing, peculiar shaped hog.
- (2). Peculiar game flavor produced by the wild life in the woods and the nuts, etc., upon which it lives.
- (3). Rapid production of flesh when the fattening process begins. The fat formed of corn and pure water.
- (4). The methods of curing and smoking.

### STOCK NOTES.

In the past seven months Great Britain imported 257,117 cattle from the United States, 55,693 from Canada, and 52,704 from the Argentine.

L. W., of Arenac Co., Mich., writes, in reply to an inquiry for a remedy for warts on cattle, that if pine tar is applied to them a few times they will leave. It has also been effective with colts affected with warts. It is a simple remedy and if it will remove warts certainly there is no good reason why the unsightly things should be left on either horses or cattle.

Last week a bunch of 45 beeves, averaging 1,560 lbs., sold at the Chicago yards for \$5.50 per hundred lbs., the highest price of the year. During the same week last year a bunch of 17 head of prime young Shorthorns brought \$5 per hundred, the highest price paid between January 1st and that date. These prices show clearly the difference between cattle values this season and last, which is 50 cents per hundred, or \$7.50 per head on prime beeves averaging 1,500 lbs. This is not a great advance, but if it paid to feed at last year's prices, the 45 head mentioned above returned an extra profit of \$351—quite a neat little sum.

Up to date the cattle dipping experiments at Fort Worth are not so successful as those interested had hoped for, still it must be remembered that these experiments are about the first of the kind conducted, and it takes time to find a sure preventive. Through the efforts of those interested in these experiments some means will be found for effectually destroying the troublesome tick.—Texas Stockman. From what we have learned of these experiments crude petroleum is used. It will not remain mixed with the water, and finally settles in a scum on top. The cattle swim through the tank and carry a certain amount of the petroleum away on their backs. It does not reach the other portions of their body, and of course does not affect the ticks there. Let a dip be tried which can be mixed thoroughly with the water and will not separate from it when once incorporated. Then the question of the efficacy of dipping for destroying ticks can be fully tested.

A correspondent asks for a description of the Tamworth hog, and the address of any one who is breeding them. The Tamworth hog is a red hog, the color being similar to that of the Duroc-Jersey. If our correspondent saw the Duroc-Jersey about 15 years ago he will have a very good idea of the Tamworth hog. The latter is thin but deep-bodied, has a large head, drooping ears, pretty heavily boned, and is a hardy active hog. Its conformation and active habits develop muscle rather than fat, and for this reason it is a favorite with bacon-curers. The average American hog raisers would regard it as a very coarse animal, and deficient in both hams and shoulders. Its deep long sides give

just what the bacon-curer wants, but from conformation we should say it was a slow grower, and was blessed with an appetite which would play havoc with an ordinary corn crop. We do not know of any one in this or adjoining States who is breeding the Tamworth. A good many were imported into Canada, but they have been generally crossed with other breeds, farmers not liking them.

## Veterinary Department.

CONDUCTED BY DR. W. C. FAIR.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case fully; also name and address of the writer. The initials will only be given. When an answer is requested by mail it becomes private practice, and a fee of one dollar must accompany the letter.

Ringbone.—Six-year-old horse has been lame for the past five months. Four months ago a hard swelling came on pastern and has since continued to grow. J. A., Coldwater, Mich.—You had better try the effect of repeated blisters. If that fails, have him fired.

Curb.—One of my driving horses went lame a few days ago in right hind leg. A swelling appeared at back part of gambrel joint. Swelling is hot and tender. How should he be treated? E. K., Lansing, Mich.—Blisters with caustic balsam once a week until it gets well.

How to Dry a Cow.—Will you advise me through The Michigan Farmer as to the best way to dry a cow? She is now giving a large quantity of milk. F. A. W., Adrian, Mich.—Feed her a small quantity of dry food. Give her two drams gum camphor twice a day; also give large doses of epsom salts. More can be done by regard to diet than by medicine and it is a much safer way.

Distemper.—Three-year-old colt has a swelling in his throat. He also has a discharge from both nostrils. He coughs somewhat and does not eat well. He is losing flesh rapidly. I think he has a fever. A. J., Bay City, Mich.—Your colt suffers from distemper. Give him twenty grains of quinine twice a day. Poultice throat with warm linseed meal. When glands soften, open abscess and allow the pus to have freer drainage. Inject wound with one part carbolic acid to thirty parts water three times a day. Let him have anything to eat that he cares for.

Elbow Tumor.—One Cow Sucks Another.—Tell me what is the matter with my horse and what can I do to cure him? He is four years old, and in fair flesh. A bunch half as large as a man's fist has come on right foreleg near the body. I do not think it is as large as when I first noticed it. Since bunch came on his leg, I have noticed a similar bunch on another horse almost as large as a man's head. Can I cure him? He is a valuable animal. Also a three-year-old heifer, due to calve in October, came to her milk three months ago by another cow sucking her. Shall I dry her up before calving? C. W. A., Ypsilanti, Mich.—Your horses have elbow tumors, caused by their lying on their shoes or from a bruise. Try tincture of iodine. If that fails, remove with a knife. You had better feed your heifer well and milk her once a day until she calves.

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## The Horse.

### HOW THE HORSE SHOULD BE FED.

The various opinions held by horse owners and farmers as to the proper method of feeding the horse, renders an authoritative statement from one who has made the subject a study, both interesting and valuable. It will be seen in the following article by J. B. Hall, of Ohio, that practically the same ground is taken regarding the necessity for slow feeding and the thorough mixing of the food with saliva to insure its proper digestion. It must be remembered that food can only strengthen the animal's system when digested, and that what is forced through its stomach in an undigested state contributes nothing to the economy of the animal, and is therefore wasted. It is necessary, therefore, that the animal must not only be supplied with sufficient food, but that ample time must be given it to properly masticate the food and prepare it for digestion. The article appeared in Colman's Rural World:

The study of the physiology of the horse, as compared with that of the ox and other animals, is calculated to give much knowledge to stockmen and farmers that shall enable them to feed them in such manner as to obtain the strength needed at once by the digestion of the more concentrated articles of food, as oats or other grain, which, for this purpose, must be retained in the horse's stomach, while the hay or other coarser foods may have passed on into the intestines. The horse's stomach has a capacity generally of 16 quarts, while that of the ox has about 15½ times as much, or about 250 quarts. But the intestines are somewhat reversed, the horse having a capacity of 190 quarts or thereabouts, while the ox has only 100. And again, the ox has the advantage of a gall bladder for the retention and distribution of bile during the digestive process, while the horse has none and depends upon the saliva being properly mixed with the food by slower mastication, the bile flowing into the intestines at once, as it is secreted. "This construction," says Colvin, "of the digestive apparatus, indicates that the horse was formed to eat slowly and to digest continuously the more bulky and innutritious food." Then, when fed on hay, it passes very rapidly through the stomach into the intestines. The horse can eat but five pounds of hay in an hour, which is charged, during mastication, with four times its weight of saliva. Now, the stomach, to digest it well, will contain but about ten quarts, and when the animal eats one-half of his daily ration, or seven pounds in one and one-half hours, at least two stomachful of hay and saliva, one of which must have passed on into the intestines. And as observation has shown that the food is passed into the intestines in the order in which it is received (first come, first served), we find that if we feed a horse six quarts of oats, it, with the saliva and swelling of the grain by chewing (or mastication), will just fill the stomach and then, of course, if, as soon as he finishes his oats, we feed him his ration of hay, he will eat sufficient in three-quarters of an hour to force the oats entirely out of the stomach into the intestines, while but slightly digested. Then, as it is more particularly the office or function, duty or natural work, of the stomach to digest the nitrogenous parts of the food, as oats or other grain, while it is believed the duty of the intestines to digest the less nitrogenous and more bulky parts of the food, as hay, etc., by the continuous pouring upon it of bile, as above indicated (the probable reason why a horse has no gall bladder), and as oats contain four or five times as much nitrogen or nourishment as the same bulk of hay, it stands to reason that the stomach must either secrete the gastric juice five times faster than usual, which is impossible, else it might retain the oats sufficiently long for digestion, or otherwise much of their strength-giving properties are lost. Therefore, this knowledge says to the horseman, if you are going to feed hay, give it first and let the oats be given last, so that they drive the hay into the intestines, while they remain in the stomach for a more full and complete digestion. With the large stomach capacity and the reserve of bile in the gall bladder to be poured out as required by the ox, it matters not so much as to which class

of food be first given; still, I think there will be less colic and gaseous disturbances in either case when the hay is fed first.

### CLOVER HAY FOR HORSES.

J. S. Woodard discusses the subject of clover hay for horses in a recent issue of the Prairie Farmer, and declares it to be more valuable in every respect than timothy, providing it is fed with discretion. In this opinion he agrees with articles which have already appeared in this paper, and we quote what he says as to his reasons for believing as he does:

"There seems to be a great prejudice in the minds of the public against clover hay for road or driving horses. That this is common, especially so in cities, is fully proven by the greater demand for timothy hay, and its very much higher price over clover. Chemical analysis shows that clover has by far the greater feeding value, especially in those elements necessary for the fast-driving road horse, and the experience of everyone who has sensibly experimented in the matter fully substantiates the claims of chemistry. The facts are that clover hay is much better for all hay-eating animals, and that they can do more work and drive farther on the same weight. The trouble is it is too good; it is so much more palatable to the horse that if his rack be stuffed, so he can eat his fill, he will gorge himself so as to be rendered unfit for fast driving. It is like filling a boy with some dainty or which he is very fond and then putting him to hard work or close thinking, or like turning a lot of hungry cows into a fresh clover pasture, from which they are sure to be troubled with hoven, not because the food is unwholesome, but so good that they eat so rapidly as to retard digestion. With mangers filled ever so full of timothy, especially as usually cut, much over-ripe, the horse will not eat too much. There is nothing to tempt his appetite. To feed clover hay to a road or driving horse the feeder should use his judgment and give just what the horse needs and no more. Let it be eaten ever so quickly, the horse should have no more until the next feeding time. The feeder's brains and not the horse's belly should be the judge as to what he should receive. There is as much digestible, muscle-supporting food in one pound of clover hay as in two and one-half times as much timothy, and as much carbohydrates, weight for weight, and 50 per cent more fat or food of energy. Early cut, bright, well-cured clover hay and oats make an ideal food for a driving horse, fed in proper quantity. Then, if the owner wants to amuse his horse between meals, fill his manger with any kind of straw; but if the straw is bright and has been well housed he will eat too much for his own good in fast driving. For a growing colt there is no feed so good as clover hay and wheat bran."

If Mr. Woodard is right in his opinion, and we feel certain he is, it is very plain that the farmer should sell his timothy hay, which brings the best price in the market, and feed his clover, which will pay best on the farm. There is little substance in late cut timothy, and its safety as a feed for horses comes from the fact that the animals will not over-eat themselves, as they certainly will with clover. They would also over-eat if given an opportunity with all kinds of grain. The danger from over-eating with clover can be as easily obviated as with grain, namely, only to give a certain amount. Timothy hay requires the help of grain rations to keep a heavy working horse in good condition. With clover but little grain is needed. It is a muscle grower, just as oats are. If you are short of oats, feed clover and bran, and your horses will not lose strength or flesh.

### HORSE GOSSIP.

Grace Hastings won a great race at Readville, Mass., on Thursday of last week, lowering her record to 2:08. It was in the 2:11 trot, and behind her in the last three heats were Baron Rogers, Athanlo, Alciddalia, Bouncer, Emma Offutt, and other noted horses.

Rilma, winner of the Merchants' and Manufacturers' stake at the Detroit meeting, won the 2:15 trot at Readville, Mass., reducing her record to 2:10. Behind her were The Monk, Oakland Baron and Tommy Britton. Eight horses started. The stakes were \$5,000. Certainly Rilma is winning her oats this season.

Lady Anderson, another "guideless wonder," paced a mile on a half mile

track, at Kansas City, in 2:08 flat. And now a match race between her and Marion Mills is talked of. Such a race ought to be honest, for there will be no driver to work them in the interest of the pool box.

Monmouth, chestnut horse, foaled 1885, by imp. Mortemer, dam Spinaway, by imp. Leamington, out of Megara, by imp. Eclipse, etc., died near Charlestown, Ind., recently, from blood poisoning, the result of a barbed wire cut about a month ago. He was a horse of royal breeding, and the lesson to be learned from his death is that barbed wire fences and valuable stock should not be on the same farm, an opinion which we have held for the past ten years. Many valuable horses have been sacrificed to this cheap fence in Michigan.

The great Futurity stakes, worth \$45,000, were run for on Tuesday last at the Sheephead Bay course near New York. Eighteen two-year-olds started, and made up a strong field. The favorite, Previous, was practically left at the post. The Thompson Brothers started three horses, L'Alouette, The Huguenot and Gibraltar. The three were coupled in the betting, and were heavily backed. Gibraltar, a brother to Henry of Navarre, was the choice of the stable. James R. Keene's good colt Uriel was also well backed, as were Plaudit, Lydian and the western favorite, Howland. The track was heavy from rain, but the race was a hot contest, and the six furlongs were run in 1:11. The winner proved to be L'Alouette, by a length, Lydian second, and Uriel third. The winner is a slender, clean-limbed filly, and her victory was a surprise to every one, including her owners. The big field killed the chances of many of the starters.

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## The Poultry Yard.

For the Michigan Farmer.  
EXHIBITING STOCK.

"Will you exhibit your poultry at the county fair? If not, why not?" are questions customers often ask. Or they will say depreciatingly, "I failed to see your fowls at the fair." To all such I will say that for grave reasons I shall not. First of all there is great danger of infection. For several years bad cases of roup have been scattered among the really fine fowls, some of them prize winners, and while by spending the best part of my time for six days I could have doubtless won the princely sum of \$1.50 per pen for birds that cost me \$10 to \$15 each, I quite likely would have spent the rest of the cold season dosing and caring for sick fowls. It may be because our poultry is crowded in a tent so full that the coops are several stories high, or the situation may be unsanitary, or ventilation may be poor, producing draughts; but for some reason there have been bad cases of roup in the tent for a number of years and birds that were otherwise valuable, winning first premiums, should have been killed and cremated instead of being returned to scatter infection along the route.

The class of judges employed at the county fairs are not posted in poultry diseases, and a bad case of roup would not be noticed if the bird could eat and drink. Occasionally cholera in its first stages is present; sleepiness, purple combs and frequent drinking are unnoticed by the experts, who seldom look beyond plumage. Or, as is oftener the case, a judge with no knowledge of poultry is employed and he receives no fee beyond the honor supposed to be conferred by the position.

A new poultry house should be provided large enough to contain the exhibits without crowding, on fresh clean ground, with judges who know poultry diseases as well as standard points to look over every crate and know that its inmates are healthy before they are assigned places in the building. Such innovations would work wonders in the poultry business in Hillsdale county, and as our exhibit is an open one, the whole State would be educated to a better purpose regarding poultry diseases than by hundreds of bulletins that some way always hit the wrong person and miss the person who raises the greatest number of fowls.  
Hillsdale County. PRISCILLA PLUM.

For the Michigan Farmer.

### POULTRY COMMENTS.

A great many farmers who keep a flock of Plymouth Rocks are careless in regard to keeping stock pure. Because a hen is speckled, it doesn't necessarily follow that it is a Plymouth Rock. One of the surest indications of impure stock is a feathered leg. Formerly it was not uncommon to see the Rock with more or less down and even feathers on the shanks, but it has become so rare that it is now taken as a pretty sure indication of impure blood. Always avoid a fowl so blemished or serious trouble in this section will follow before the difficulty is entirely eradicated. If a poultryman would be careful and throw out specimens so blemished, it would be but a comparatively short time before the difficulty was entirely removed. Nothing can add more to the beauty of the Plymouth Rock than a clean bright yellow shank.

In the issue of The Farmer for August 14th, one of your correspondents gives some most excellent advice under the heading "Controversies Depreciated," but it seems to the writer that he is getting on ground which can well be called questionable, when he charges plagiarism in this department, especially since he fails to name the offender. Would it not have been fully as well to have made a clean cut or else not have mentioned the matter at all?

The writer has sometimes wondered why more farmers do not keep geese. We have always thought that we would like to give them a trial, but, unfortunately, our location is too far from running water to make the idea really practical. Possibly a little practical experience would change our opinion, but we have always thought that they were not a difficult fowl to raise, judging from observation and the experience of others. Doubtless the goose is

very much like the duck; while the latter can be raised away from water, there is every reason to believe that they can be reared fully as profitably when they are allowed to exercise their natural resources.

It is a standing query with many persons as to what they can put in the nests to keep out the lice. We remember reading an article, perhaps a year ago, in an eastern paper, wherein the writer recommended onion shucks as a sure preventative. The idea seemed excellent to us, but we have never tried it owing to the want of the shucks. The writer has little doubt but what any one who has a quantity of this article will find that they can be used to a good advantage.

This season we have been making a serious attempt to avoid late hatched chickens; that is, young stock coming out during August or even the latter part of July. Last year we had young stock come off as late as September and we concluded this year, if it was possible, to avoid them entirely, and we have succeeded pretty well. It is entirely out of the question for a late hatched chicken to reach anything like maturity with what the average farm has to offer. Where a person has time and inclination to see to them, possibly they would be worth while. But even then a serious question can be raised. One difficulty with late stock, they are of little use except for market and in the majority of instances not the best for this. A late hatched pullet very seldom makes a winter layer; generally they do little or nothing in this line until spring and even then lay only moderately well. The writer has found it difficult to get a late hatched fowl in marketable condition in time to go with the earlier stock. Often it will be found that when the early chickens are in good condition the later ones are little more than skin and bones, having put all the feed into growth rather than to fatten. On the average farm the best paying young stock are those hatched in April or May.

The writer wonders how many farmers keep certain fowls year after year which do little or nothing to "earn their salt." Did you ever go by your hen house during the middle of the day and note all the way from three to a dozen hens sitting on the roosts? The writer has noted this particularly the past summer when passing the poultry house and spied several of our Plymouth Rocks in taking a rest. We are gravely suspicious that this is about all some of them did. A fowl to be a good egg producer must be a good worker too. Those hens that are not working are not laying eggs and ought to be disposed of before they have eaten their heads off.

The Pea-combed Plymouth Rock is one of the varieties of thoroughbred poultry that is fast becoming obsolete. A close study of the advertising columns of the various poultry journals will develop the fact that there are not half a dozen persons breeding and advertising them to-day. In fact, the writer knows of only two who are interested in them at all. It is difficult to see why a fowl with such qualities to recommend it as the Pea-combed Rock should meet with such a chilling reception. So far as the writer knows to the contrary, they are in every way equal to the S. C. Plymouth Rock and in one respect possibly could be classed superior when regarded from a utility point of view. So far as we know from observation and knowledge of the two varieties of the Barred Plymouth Rock, the only difference aside from popularity is in the comb. The common Plymouth Rock has a low single comb, while the Pea-combed has comb like the Brahma or one that consists of three small combs side by side, the larger in the middle. The latter is less subject to frost.

Shiawassee County. C. P. REYNOLDS.

### FALL MANAGEMENT OF TURKEYS.

Success in securing a large number of little turkeys depends upon the winter and spring management. It is, however, one thing to raise a large flock, and another to put it in the best shape for market. Many old and successful growers are not well up on this end of it. If their methods were improved and more care taken in fattening, dressing and sorting, as well as in packing them as the trade demands, much better prices would be received. Beginners who have succeeded fairly

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well in raising a flock are often all at sea when it comes to preparing them for market.

Rhode Island turkeys are famous for their quality. Some of our readers may remember the appearance of those turkeys exhibited in the dressed poultry department of the Boston show. In the best markets in New York city, Providence, Newport and Boston they lead those from other sections. In the same markets they often bring ten or twelve cents more than those from all other states except Connecticut. About New Years a leading New York paper quoted R. I. turkeys at twenty-eight cents, and everything else in the turkey line at less than seventeen cents. Many growers are interested to know the reason.

It is not their fame in the past, or because they are scarce, that they sell for the most; it is on account of their superior quality. Much of this high quality is due to the plump, compact breeding stock used, and to the way it is managed; also to the care taken in growing and fattening the young turkeys. The pains taken in dressing and preparing them for shipment, however, probably does more than all else to give them their high standing.

Of course you can not dress a thin, flat bodied, long legged bird so it will sell with the best; but the plumpest, best shaped and most attractive bird in every way, previous to killing, may be so dressed that it must be classed with that which is inferior.

Again, the handsomest young turkeys that are perfectly dressed if packed along with ill dressed ones, or with tough old toms and hens, must be classed with the latter, and go for less than they are worth. Too many send nothing but "fair to poor" stock to market. In many cases it is simply because they do not know how to prepare it so it will bring all that can be got for it.

Successful R. I. growers as a rule feed their turkeys from start to finish on northern white flint corn, which they grow themselves. They take great pains to use nothing but well seasoned old corn, because they have found that new corn causes bowel trouble, which is more to be feared in a turkey than any other fowl, and is liable to be fatal. Diarrhoea seems to be more prevalent among turkeys than any other disease, and a bird that gets sick is very apt to die. Foraging in a field of green oats may give them diarrhoea and cause much loss.

Turkeys not only like northern flint corn best and fatten best on it, but it makes their flesh more tender, juicy and delicious. That given the little ones is coarsely ground and mixed with sweet or sour milk, or made into bread that is moistened with milk. This is gradually mixed with cracked corn, which, when they are about eight weeks old, is fed clear or mixed with sour milk. In the fall whole corn is given.

Turkeys which can be given full liberty from the first on a dry pasture lot, and after a few weeks allowed to roam and roost wherever they choose thrive the best if they escape accident or enemies. Two turkey hen mothers and their broods will then generally join forces apparently for mutual protection from hawks and other enemies. Where they cannot be given full liberty they should be given fresh grass pasturage daily, and milk curd, corn gluten and wheat, as well as corn, to take the place of insects. Great pains should be taken that they are not overfed, and that they are given as much liberty for exercise as is possible. The brood may be prevented from leaving a certain field by shingling the mother turkey, so she cannot fly over the wall or fence. This, however, places her at the mercy of dogs. After June 1st those at full liberty are usually fed but twice daily.

Resorts like Newport use hundreds of partly grown turkeys in July and August. From \$1.75 to \$2.25 are given

phosphoric acid, and nitrogen, are the necessary ingredients of a complete fertilizer; Potash being most important.

for those weighing from one and one-half to four pounds each. They are sold to dealers who supply clubs, hotels and wealthy private families. These small turkeys are very lean and tender, and soon spoil or become discolored even if placed on ice, therefore only nearby raisers can handle this trade.

If there is much risk of loss from disease before the turkeys can be matured, or if the number grown is so great as to overstock the place, it may be advisable to turn them off at this age.

Possibly there are many other sections where small turkeys can be profitably marketed in this way. If young chickens, ducks and geese can be sold at a greater profit, for more money, when partly grown than if kept until much larger and fed twice or three times as long, there may be possibilities for the enterprising turkey raiser in this direction.—Samuel Cushman, in Poultry World.

Oats make the best food for summer if grain is allowed. Some object to oats, claiming that they cause crop bound, but this is not true. Injury may have been the result when fowls could get no grit, but no harm will result from feeding oats when plenty of sharp grit is supplied. Oats are not as fattening as corn or wheat, and should be used at this season of the year.

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## Grange Department.

Our Motto:—"The farmer is of more consequence than the farm, and should be first improved."

Address all correspondence for this department to  
KENYON L. BUTTERFIELD,  
AGRICULTURAL COLLEGE, - - MICH.

News from Michigan Granges is especially solicited.

### THE ERIE CANAL AND THE FARMERS OF MICHIGAN.

The State Grange has discussed the question of deep water transportation from the lakes to the ocean, and while the subject presented below is not exactly along this line, it promises to be a movement of considerable importance to the farmers of Michigan and the Northwest. The quotations which we make are taken from an interview in the Detroit Free Press with Mr. Erastus Wiman, of New York city, and explain themselves:

"It is a fact not generally apprehended," said Mr. Wiman yesterday, "that the Erie canal, now being enlarged at an expenditure of \$9,000,000 voted directly by the people, will possess a carrying capacity for food products equal to that of the five trunk line railroads that parallel it; and, moreover, it will be competent to take care of and to handle every bushel of grain or every barrel of flour that the lake marine can deliver. Further, that while the railroads now carrying these products are exacting rates paying fixed charges on an aggregation of \$500,000,000, or equal to \$1,000,000 per mile for the distance traveled, the canal, being free, exacts no such tremendous tribute. Further, that the cost of maintenance, which to the railroads is next to that of interest, is for the canal borne by the State and in no sense can be made a charge on the products that are handled. Still further, that the cost of movement of freight by the railroads has never yet been less than five mills per ton per mile, while on the canal a profit is possible at a mill per ton per mile. Think of it! One ton ten miles or ten tons one mile for a cent! And yet, still further, all railroad freight passing through the harbor of New York, in or out, bears a lighterage charge of three cents per 100 pounds, or sixty cents a ton, equaling on a 30-ton grain car no less a charge than \$18, which either the producer or manufacturer pays, and which lighterage charges, in the harbor of New York, reach the enormous sum of \$10,000,000 annually. Canal freight bears no such charges, for, being already afloat when it enters the harbor, it can be delivered at a ship's side or to storage at any point without any cost for transfer.

"In anticipation of the enlargement of the canal, a modern equipment will now be created, and the business will be inaugurated next May with an initial fleet to be increased in the two following years to an extent that will enable the canal to carry the whole 10,000,000 barrels of flour, instead of less than 1,000.

"The immediate necessity for making available this independent artery from the center of the continent to the sea by an all-water route is found in the remarkable concentration of railroad ownership in a few hands. The acquirement of the Lehigh Valley road by Mr. Pierpont Morgan places in the control of that gentleman the five trunk lines that parallel the canal, for long ago he dominated the New York Central as well as the Erie, which he recently reorganized. Having control also of the Reading and the Lackawanna, he dominates the anthracite situation, while the certainty that the Baltimore & Ohio will fall into his hands for reorganization makes it possible for him to get a New York entrance for his southern system, so that he will more or less control the outlets for grain and flour at Newport News, Norfolk, Baltimore, Philadelphia and New York. Owning, as he does, also, the control of the New York, New England & Hartford and the New England systems, and having also complete control of the Northern Pacific system, connecting the same by steamers from Duluth to Buffalo, where his five New York roads terminate, he dominates the entire railway area and possesses a power greater than that given almost to any other mortal, judging by the area covered,

the variety of products affected and the interests involved. All producers and millers in the west, equally with all independent railway systems terminating in Detroit and other railway centers are therefore profoundly interested in having an all-water route and an independent access to the sea.

"Under the circumstances, the movement to make available the provision which New York state has so liberally given as a free supplement to the great lakes must possess a deep importance for numerous interests in Michigan."

### FARMERS' DAY AT BAY VIEW.

This occurred Wednesday, August 18th. It proved to be a rainy day, and this fact kept away hundreds of farmers of the vicinity, but excursions came from as far as Traverse City and Kalkaska, and there were at least 200 farmers present, besides numerous people who were attending the regular Bay View Assembly. The day was, we believe, considered a complete success, barring the reduced attendance, for we heard many expressions of pleasure, both from the farmers present and from others. Superintendent Hall, of the Bay View Assembly, expects to make this Farmers' Day a permanent feature of the Assembly, and we predict that, if properly managed, it will become a strong feature in binding together farmers and people of other occupations, and will form an admirable place and time to discuss questions of higher interest to the farmers. Addresses were made as follows: Pres. J. L. Snyder, Agricultural College, "Practical Education." Mrs. Mary A. Mayo, "Home Life on the Farm." Hon. John M. Stahl, of Illinois, "The Farmer's Isolation; its Import and its Remedies." We quote briefly from each address.

#### PRACTICAL EDUCATION.

"Does an education pay?" is the question asked by most parents, taking into consideration, of course, only the financial or commercial view of the proposition. They refer usually not to technical or practical education, but to general education, such as is given in most high schools and colleges. We are not surprised that such questions are often asked, and from the standpoint of the inquirer they are not easily answered. If an education was to be measured only in dollars and cents evidence would not be wanting to show that the higher education is not worth the money and time spent in its getting, yet on the whole I believe that from a commercial standpoint alone education pays—even the study of Latin and Greek is most cases will pay in dollars and cents. Of course, man must earn a living, and unless he is prepared to do so honorably he will not make a good parent nor a good citizen, but character and intelligence and noble aspirations are worth more than money. An education can no more be measured in money than can a mother's affection or the nobler motives which lead to high thinking and pure, upright living. It is one thing to have enough food and clothing for comfort and to care for nothing beyond, but it is an entirely different thing to open up a mind to the full development of all those powers of intellect and soul with which an all wise Creator has endowed man. Yes, an education does pay. It would be worth all it costs if the outlay were ten times as great. When once possessed, money cannot purchase it. The only question is, "What kind of an education pays best?"

"I believe our schools can be wonderfully improved by adding to our district schools practical work in botany, horticulture, entomology, and various phases of agriculture. No other work would be so thoroughly enjoyed by the pupils and of such value to them in after life. Many district schools in this state have already planted flowers and there is no reason why each should not have not only a flower garden but also a vegetable garden. The wealth of beauty and interest that surrounds a country child is marvelous and if in school he could be taught to understand and appreciate these the glare and bustle of the city would have few attractions for him.

"The ordinary high school course should be to a great extent an industrial course. Nine out of every ten pupils should, and will, pursue one of the ordinary walks of life. It should not be the aim of the high schools to lead pupils away from the calling to which they naturally belong, unless that it is a dishonorable one, but it should strive to prepare them to live a happy, useful successful life in that calling.

"Girls should also receive a practical education in our public schools. In our district schools they may to good advantage be given practically the same work along industrial lines as that given the boys. But in the high school their work should center about the home, just as the boys' work should center in the farm. They should be given a thorough course of domestic science. There is no place where a knowledge of science can be put to better use than in the kitchen. Science and invention have relieved men of much toil and drudgery and they can do the same for women. Every girl who takes a high school course, and those who do not take one, should be given a thorough course in cooking and sewing. These and their accompanying sciences first, then music, modern languages, art, and whatever accomplishments may be desired.

#### "HOME LIFE ON THE FARM"

was the theme of the next speaker, Sister Mary A. Mayo. The following report includes some of the good things contained in her address:

"Home Life on the Farm." What is a home? To the roving red man of the west home is where he rolls himself in his blanket and lies down to sleep. To the nomadic wanderer home is where he nightly pitches his tent. But to the civilized man, home stands as an abiding place. It is his shelter; it is his fold where he can gather his loved ones to him and say to all that is impure and unholy, "This is my home, my fortress, where I am to rear a family and a name, and all that is unholy must stay without." Friends, it makes very little difference indeed as to what constitutes the building of that home—the material. It may be the rudest log cabin upon the new farm—the pioneer home; and in many and many of these pioneer homes what strength of character has been developed and what beautiful manhood and womanhood has gone forth to bless the world. It makes no difference what the home is as to its construction, but it makes all the difference in the world, not only to that individual home but to every other home that ever shall come within its reach or touch, as to the inner character and life of that home. I hope, dear friends, this afternoon that you will not think this little talk too pointed—its lessons too practical, but I want to bring to you farmers words of good cheer, something to comfort, something to brighten, something to uplift and make of your homes better homes, and of your own lives something that shall be sweeter and stronger and clearer and of the world something that is brighter and nobler than it has ever been before and that the calling of the farmer shall stand for all that is good and noble and true. I know that we farmer folks often feel like complaining. And there is one complaint we hear almost every day of our lives, and it ought not to be, and that is we are pitied by other people. I have been pitied twenty times since I have been here. I want to tell you I don't care for your pity. I live on a farm and do the farm work that a mother does, but oh it is a blessed work! I know we work hard, but what of it? I want to tell you what is a great deal worse—no work at all. Why, there are thousands and thousands of fathers and mothers today who are begging for work and there is no work for them, and I want to tell you that there is nothing on the face of the earth that is taking the manhood out of our men and womanhood out of our women as this begging for work and no work to be found. (Applause.) You ought to rejoice that you have work to do. Truly, as President Snyder has said, "The salvation of the boys and girls today is in having plenty of work to do." I believe that the boys and girls in farm homes today stand clean and loyal to that which is best, because they have plenty of work. And do you know it is only because they go off to the city and have nothing to do or have a position where money comes easily that the evil comes too. I tell you, my friends, we read in the best of all books of another life, higher, brighter, more beautiful and more glorious than all this, but I believe that unless it begins with us right in our own lives and homes with our own loved ones around us the chances are it will not begin anywhere. We want to make of these homes of ours a little heaven of our own. It must be made if we are going to send out our sons and daughters so they will grow up to bless the world and lift humanity Godward."

#### "THE FARMER'S ISOLATION; ITS IMPORT AND REMEDIES"

was the subject of an address by the Hon. John M. Stahl, of Chicago. The

following passages will give some idea of the character of this address:

"For the isolation of the farmers there are three remedies; the telephone, free delivery and good roads. In Illinois we are not very progressive, but we have a great many telephones and we have found that we cannot get along without them. What do they cost? They cost us about thirty-one dollars apiece to put them in, we furnishing the poles, and they cost about ten dollars a year for repairs, interest on investment, expense of running, etc. But now that we have them we can keep as close watch on the wheat market in Chicago as the city fellows can, and they are of almost inestimable value to us when we need anything in a hurry from the city.

"The average mail facilities for the farmer are no better than they were twenty years ago. But the trouble is not that the appropriations have not been sufficient, but because the city fellows have had all the money which was appropriated for the country mail service used in the city improvements.

"The third remedy is good roads. No farming community can live well without communication and this it cannot have without good roads. Good roads are a necessity to the maintenance of any farmers' organization. In Illinois our county surveyor is superintendent of all road jobs, and we get an order for the treasurer to collect the road taxes in cash instead of work, so that we can let the work out to jobbers and get it done better than if we worked."

#### GRANGE NEWS.

Wilson Grange, No. 719, held its annual picnic August 12. Not a very large crowd was present owing to the busy times and coolness of the weather, but those who attended spent a very enjoyable day. A bountiful dinner was provided by the ladies, to which all did ample justice, after which a program consisting of recitations, music, etc., was rendered, followed by a speech from John Jones, of Clarion.

At our last regular meeting, August 19, was begun our literary contest, which will continue for five more meetings. Although the attendance was small a good program was rendered by each side. A committee was appointed to solicit fruit for an exhibit at the county fair at East Jordan, as a premium is offered for the best exhibit from any township.

Charlevolx Co. MRS. O. D. S., Lecturer.

Banner Grange.—Resolutions adopted by Banner Grange, No. 640, in regard to Gov. Pingree's message on railroad taxation: Whereas, it is plainly evident from the reports of the railroad commissioners of this and neighboring states, as quoted in the Governor's message, that the railroads of the State of Michigan, while receiving a large part of the benefit of the money expended every year by the State, are bearing but an insignificant part of the burden of taxation, thereby increasing the load of the already overburdened farmer; and

Whereas, if justice were done and the burden equalized, every dollar of wealth, whether invested in a farm, a railroad, or any organized corporation, would pay the same amount of tax. Be it

Resolved, by Banner Grange, No. 640, that we are in earnest sympathy with the Governor in his efforts to obtain a more equitable distribution of the State taxes, and that we sincerely deplore the neglect of the last legislature to follow the suggestions of the Governor, and take some steps toward relieving the overtaxed farmer, and placing at least a portion of the burden upon those better able to bear it.

Ionia Co.

SECT.

Ronald Grange, No. 192, has something over 90 members in good standing, and holds regular meetings every two weeks. While the attendance for the summer is not all that could be desired, we have had quite interesting meetings and discussions on the following topics: "What Two Crops Are Most Profitable to the Farmer?" "Economy on the Farm," "Winter and Summer Dairying." The first named resulted in clover for first crop, the second being divided between wheat and corn.

We are contemplating holding a Grange fair in the near future, in which all will be invited to participate. Some small premiums will be offered, such as strawberry and raspberry plants, choice garden seeds, etc., for best display of different vegetables, and other small premiums in other lines.



Are hoping for a pleasant and profitable time and to induce others to join our ranks. Wish other Granges would try the plan and report.

A few of our number made the most of the excursion to the Agricultural College and felt well paid for the trip. The only complaint was too limited time. Think the College just the place for our boys and girls to receive a thorough, practical education. The addition of the woman's building—Abbot hall—was a happy thought, and should receive the hearty support and commendation of the farmers of the State. So thinks

Ionia Co.

ONE WHO WAS THERE.

Rome Grange, No. 293.—Only 32 members were present at the last meeting of Rome Grange, held August 21. The usual order of business was gone through with. A paper was read by Sister Dowling on the question "Do farmers live as well and economically as they might?" and "How can life on the farm be made more attractive and enjoyable?" The writer thought that generally the farmers do live as well as they might, but not as economically as they may. The last question was thought to be rather hard to answer, as it had been brought up many times before and still keeps coming up.

A short article was read from The National Grange Quarterly Bulletin by Sister Altha Pickford. Other members also took part in the question. They all seemed to think very much alike about it.

Sister Davison read a paper on "Home on the Farm." Home must be made attractive, so that all may think of home with the feeling of the poet, "Home, sweet home, there is no place like home;" good books in the house are the good seed sown.

Brother Davison also read a paper on "What Constitutes a True Patron?" Too many join the Grange through selfishness. The symbol of planting the seed served as a text for Brother Davison's paper. There were also some recitations, selections and songs.

Lenawee Co.

DORA L. DOWLING, Cor.

Cascade Grange No. 63, held its regular meeting September 21, it being the fourth meeting of the contest. The subject given out was relating to the Klondike gold mines, of which quite a description was given.

The general discussion took the free and easy way, and many subjects were brought up—hauling manure and leaving in heaps instead of spreading at once, plowing it in instead of top dressing, raising chess, cockle, rye, etc., with wheat, instead of having the wheat perfectly clean, as one member offered the thrasher one dollar per pint for all the chess he could screen out of 255 bushels, but there was not one kernel to be found. The buyer at Ada said one man brought over 300 bushels to the mill and after screening and dockage he paid for only 150 bushels. We are glad to know that he is not a Patron but there is great need of his joining, as well as many others.

The spread of noxious weeds by the railroads and in our grass seeds and by neglect of farms in general, is telling fast in the spread of a great evil.

Some talk by stockholders and patrons of the Ada butter factory disclosed the fact that it is much like a district school or any other public concern, some not satisfied, some think they can make and market their butter cheaper at home and get just as much butter from their milk. The factory is turning out about 300 pounds per day, and the test of cows is said to be the highest of any creamery in the State. The present price is 16 cents.

Our next meeting will be September 9, 7 p. m., and is to be a Ceres meeting. All members are requested to be present and bring all kinds of grains, especially wheat and corn. The afternoon meeting will be September 18, 1:30 p. m., and will be the last meeting of the contest; at present the sisters are 1,100 ahead in counts.

The worthy gatekeeper was appointed to present samples of grass seed and prices, that the Grange may select and buy at reduced rates.

We think it must have been an error in print or else Bro. J. H. Burn's wheat could be greatly beaten here; 46 kernels in a head can be nearly doubled by the Patrons here.

LECTURER.

Leonidas Grange.—At a meeting of Leonidas Grange, August 21, the roll of all except the newly initiated was called. Each was expected to respond with either a speech, selection, essay or quotation that would explain the purposes of the Order. Brother Henry Damon read the Declaration of Purposes.

Brother O. B. Graham said: "The

Grange is both co-operative and social. Co-operative for the purposes of buying and selling, and for influencing legislative action. By its being secret we have the power to exclude improper people. A man is known by the friends about him. A society is known by the people who steadfastly support it, and by those who seek admission to its doors. 'By their fruits ye shall know them,' can be aptly applied to the Grange because it has lived long enough to put its theory into practice."

Worthy Master Monfort thought the objects had been well set forth. He believed in discussing how to increase quantity and quality of production. He also believed when these articles were raised it should be the duty as well as the pride of the owner to exhibit them at the county fair. A premium had been offered this year for a Grange exhibit; he thought, with such abundant crops, a good one might be made.

Sister E. Purdy: "One of the grandest features of the Grange is to unite us in one great brotherhood."

Sister D. Purdy remembered the time when city people called us hay-seeds for common. She had heard a city lady wonder this spring how country women could use as good taste as they did in selecting and buying apparel when they came to town so seldom. Sister Purdy believed the Grange society had been some assistance in this respect.

The lecturer said we could not discuss without being wiser. He called attention to the question-box, and reminded the brothers and sisters that the Grange was exactly what its members made it.

St. Joseph Co.

COR.

#### GENERAL TOPIC FOR SEPTEMBER.

##### GRANGE HISTORY.

Question 1. Before the Grange was organized, what influences conspired to make a national farmers' organization a necessity?

Question 2. Is the Grange fulfilling its mission and meeting the demands of the times?

##### SUGGESTIONS.

In the selection and consideration of general topics for discussion in the Grange, we should not lose sight of our organization, and the reasons for its existence. To the older members of the Grange it may or may not be interesting to recount its history, and to note the progress that has been made while a generation of workers have passed away; but there are many thousands of members who have joined the Grange during the past few years, who know but little of the early history of the Order, and as there is no complete written history of the Grange and its work to the present time, it is of the utmost importance and it will be very profitable for every Subordinate Grange in the land to devote at least one meeting in the present quarter to Grange history. In making suggestions for the first part of this topic, we do not detract anything from the honor that is due Mr. H. O. Kelley, who was the leader of the "Founders of the Order" when we say that the past events in this country and perhaps on the continent of Europe also seemed to point to an arousing of the masses from a partial enthrallment of thought to the realization of the fact that smaller, more favored and in general better educated classes, through organized efforts, were exerting an undue influence in public affairs, and in a measure controlling the thoughts and actions of the larger and less favored classes, especially the agricultural class; and even in this country where the equality of man before the law was universally acknowledged, and freedom of thought and action a fundamental principle in citizenship, the tendency was to belittle the importance of agriculture, and ignore the farming class in public affairs and matters of legislation.

Under these conditions and others incident thereto, the intelligent, thinking body of farmers were growing restive and farseeing men began to discuss what might be done to bring the farmers together and in some way enable shadowed all other questions for the time being, and at its close the spirit of speculation and disregard for the rights of the farming class had multiplied a hundred fold. In addition to this, there was pressing need of some plan to bridge over the "bloody chasm," and if possible to heal some of the sectional differences which existed between the North and South. Mr. Kelley saw the opportunity, received the inspiration, and brought the farmers together under the banner of the Grange. In con-

sidering this part of the topic, the discussion need not be wholly confined to the question proposed. Every Grange has its history, and in most of them it is unwritten. There are many interesting incidents connected with Grange work in the seventies and later, which ought to be noted down and kept with the Grange records. These Grange histories are valuable now, they will be more so in the future.

In the consideration of the second part of the topic, but few suggestions seem necessary. It should first be distinctly understood what the mission of the Grange is. There has been some difference of opinion upon this point. Some have thought that the Grange was a political machine to be set up by the farmers, ruled by this or that party managers, and run in the interests of a few office holders. If this was its mission it has utterly failed, for every Grange that went into partisan politics has also gone into oblivion. What its mission is in a financial way is for the members to determine, as well as its field in social culture and intellectual development. This part of the topic calls for a faithful report from the lecturer.—Alpha Messer, National Lecturer.

#### THE BAW BEESE PICNIC.

The following report is from the Hillsdale "Standard."

The Tri-State Grange picnic, which was held at Baw Beese Park last Wednesday, was the largest that has been held here this year, between seven and eight thousand people having been estimated to have been in attendance early in the afternoon. It was a crowd of as fine appearing people, too, as has ever been seen at the lake and the reason is easy to guess, for the Grange represents the intelligent farmers and their families always.

The meeting was called to order by President Horton at about 11 o'clock, the address of welcome being given by Mrs. Hunker, of this county, in the absence of G. C. Barker. Responses were made by G. D. Moore, in behalf of Lenawee, Hon. D. D. Buell, for Branch, and Weston Hutchins, for Jackson, and Mrs. Emma A. Campbell, for Washtenaw. The other numbers on the program before dinner were a song by Prof. B. P. Thomas, of Lenawee, a paper by Emily A. Horton, of Branch, a recitation by Ethel Noble, and a paper, "The Day of Little Things," by Belle S. Moore of Hillsdale.

After dinner the band called the assembly together in the auditorium where the program of addresses, music

and recitations was given. The first address was a paper on "The Farmers' College," by Burton A. Bowditch, of Hillsdale, who told of the Michigan Agricultural College, which is the first of its kind not only in the United States but in the world. Mr. Bowditch asserted that this college is better known and valued outside our own state than it is with the farmers for whose special interest it was founded. He hopes this state of affairs will not continue. Michigan taxpayers, he declared, pay but about one-fourth the expense of keeping it up, the average taxpayer giving but nine cents to its support to \$1.80 toward the University.

Byron W. Bray, of Branch county, talked on "The Responsibility of the Farmer," taking the stand that the interests of farmers all over the land are identical and if they accomplish much in maintaining their rights they must act more in unison.

Carrie Everett, of Lenawee county, gave an address on "The Farmer's Wife of To-Day and a Hundred Years Ago," which was thoroughly enjoyed by those who could hear, but the acoustic properties of the pavilion are far from good, and it was difficult for a woman to make herself heard at any distance.

Hon. John K. Campbell, of Washtenaw county, who was a member of the last legislature, gave an address on "The Farmers and the Last Legislature." Mr. Campbell wasted no time in preliminaries nor elocution but got right down to the work attempted and accomplished in the last legislature by the farmer members. The first attempt, unsuccessful however, was the reduction of salaries of county officials. This got through the house only. An increase in the taxes on roads, they opposed, also the establishing of new state institutions under existing conditions. These measures they defeated. Their bill to stop the appeal of minor cases from justice courts to circuit courts was also lost in the senate, but there was sufficient done to show the farmer is a force in legislation and would be more so as farmers united more to carry through their measures.

A good address by Hon. L. C. Chase, of Lenawee county, on "Our Government and the Interest of Agriculture," closed the program.

Fine music was furnished by glee clubs from Quincy, Moscow, Osseo, etc., and there were songs and recitations besides, the songs by Prof. Thomas being particularly enjoyable. This gentleman has a voice of wonderful sweetness and his selections were irresistible.

## OVER STUDIED.

### A YOUNG LADY'S HEALTH RUINED PREPARING FOR GRADUATION.

#### Was Over-ambitious and Went Beyond Her Strength. Constant Pain and Misery—Her Critical Condition.

From the Democrat, Shelbyville, Ind.

In one of the main streets of Shelbyville, Indiana, resides Mrs. Emily Edwards and her 17-year-old daughter, Cora. The young lady is one of the charming misses of the city, she being known for her beauty, and perfect health.

"Although enjoying good health now," said her mother to a reporter recently, "she has not always been so fortunate. I suppose Cora, until two years ago last March, was as healthy and strong as any girl of her age. She was attending school and was studying hard. Perhaps she was too studious, for we noticed that the healthy color in her cheek was rapidly disappearing, and she was becoming pale and sorrowful. Dark, swollen circles began to appear under her eyes, and she rapidly became worse. We were living in Franklin, Indiana, at the time, and Cora would have graduated that spring. She stopped attending school and endeavored to get a rest, but her health kept failing. Her blood was colorless and impure. She would also have sick headaches, could scarcely eat or sleep, and was almost continually in pain. Nothing which we did for her seemed to do any good.

"Different physicians treated and prescribed for her, but she kept getting worse. She had formerly weighed 109 pounds, but during her illness her weight had dwindled down to seventy-nine pounds. We began to think there was nothing we could do for her benefit, when I happened to notice an article in a paper regarding the merits of Dr. Williams' Pink Pills for Pale People. I thought that if there was ever a pale person it was certainly Cora, so I decided to buy a box of the pills and let her try them. It was the first of last May when she began, and near the middle of June when she stopped using the pills. The first dose helped her, and

after the first box had been taken, she was a different girl. She continued with this medicine and when she had taken eight boxes a complete cure had been effected.

She is now stronger, can eat more, sleeps better, and weighs more than she did before she was taken sick. I am sure too much cannot be said about Dr. Williams' Pink Pills for Pale People in her case, as they undoubtedly saved her life. We have recommended them to a number of sufferers."

The young lady said a word of approval, and that she felt very grateful for the benefit received through Dr. Williams' Pink Pills for Pale People. "I agree with my mother," said she, "that I would not be living to-day had I not used these pills."

To leave no doubt as to the truthfulness of her story Mrs. Edwards cheerfully made the following affidavit:

Shelbyville, Ind., May 13, 1897.

This is to certify that the above story concerning the illness and subsequent recovery of my daughter, Cora, is an exact and truthful representation of the facts in her case.

MRS. EMILY EDWARDS.

Shelbyville, Ind., May 13, 1897.

Subscribed and sworn to before me this 13th day of May, 1897.

L. C. MAY, Notary Public.

Dr. Williams' Pink Pills for Pale People contain all the elements necessary to give new life and richness to the blood and restore shattered nerves. They are sold in boxes (never in loose form, by the dozen or hundred) at 50 cents a box, or six boxes for \$2.50, and may be had of all druggists or directly by mail from Dr. Williams' Medical Company, Schenectady, N. Y.



## Miscellaneous.

### "THEY'LL NEVER MISS ME."

Lucindy Jane, aged thirty-five,  
Was the most unselfish girl alive.  
"Mother was sick, and father was pore,"  
But she managed to keep the "wolf from the door."  
Her brothers and sisters "real gifted,"  
She said,  
"Had to be schooled and clothed and fed."  
So she did the washing, and scrubbed the floors,  
And mended the clothes—did all the chores  
When the boys forgot the Sunday's wood  
She split it herself, as well as she could.  
If they asked her to go to a huskin' bee,  
She said, "I'm too busy; they'll never miss me."  
Old Deacon Calkin, fervent and thin,  
Took every occasion to "jist drop in  
To talk to Lucindy," her soul to win.  
"Cause workin' on Sunday's a drefful sin.  
It's breakin' the law of God," he said;  
"And'll bring down judgment on your head."  
When the last trumpet's thunders roll,  
And all the sky is a written scroll,  
You've got to face the Almighty then,  
And render account with the sons of men."  
Lucindy heard with her quiet smile,  
Mending the last week's wash the while.  
"I b'lieve, my soul, Deacon Calkin," said she,  
"That the Lord knows all about Sunday and me.  
Don't talk about none o' your 'glories to be,'  
And 'trumpets' and 'scrolls' and 'judgments' to me.  
If ever I'm laid in a long, cool grave,—  
A poor old, tired, and worn-out slave,—  
They may blow all the trumpets from Dan to Bershee:  
I'll just keep shady as shady can be,  
And lie there and rest; they'll never miss me."  
—Virginia Morgan, in August Century.

### THE RETURN OF DICK WEEMINS.

Set down—set down, stranger, an' I'll tell you the whole story. There aint much trade in the village about this time o' day, an' we've got a good hour to ourselves. Take the chair, sir; the cracker-box 'll do for me; it's Hank Barnes's fav'rit seat, an' I feel more to home settin' on it that I do on a chair.

I don't remember as I ever saw a better sot up woman than the widder Weemins when I fust knew her, twenty year ago. She'd a cosey little cottage then, down at the end o' the lane, an' lived as comfortable as you please; plenty to wear, plenty to eat, an' able to give a good schoolin' to her two little boys.

I had jest took the grocery then, an' I don't mind sayin' as how I had half a notion to make up with the widder, an' ask her to become Missus Noll an' help run the store. To be sure she was well on in years, even then, bein' married late in life; an' care an' hard work had bowed her down a bit an' streaked her head w' gray, but there was a sweet, hopeful look in her face, specially when she turned to her two boys, that showed her heart were still young, an' sot in the place a heart ought to be.

But she hadn't been a widder long, then, an' hadn't forgot her man; so I kinder waited to see that sad and patient look pass out o' her face afore I perposed—an' it never did; an' so I never asked her to become Missus Noll. Besides, her husband had left her \$2,000 life insurance, an' I thought perhaps she'd think it was that as I were after, an' if she didn't the neighbors would; an' that helped to make me dumb, although I allus had a warm likeness for the widder, if not an actual hankerin' to help her bear her sorrows.

She didn't seem to need much help in them days; she sewed for the hull neighborhood, an' worked hard an' late, makin' her own livin'; because, as she said, she wanted to save that two thousand dollars for her boys when they should grow up an' need it. They seemed good boys, too, specially the oldest, who had a business-like way with him as he grew up that was unusual in most lads. An' if Dick, the youngest, were a bit wild an' liked to git inter mischief, why Tom was as model a youngster as any mother might wish.

An' so they grew up, well taught by the widder an' well behaved as boys go, an' I watched 'em careful an' made up my mind that Tom would be a fine business man, an' succeed in the world; but Dick I had my misgivin's of. He wasn't so 'specially bad, but he wasn't so 'specially good, neither; an' he hated work as bad as parson Bullum hated the devil.

But the widder seemed to turn her love on Dick more an' more, though she often said as she looked to his brother as her main prop in her old age. An'

so, when they finished at the village school, partly to please the widder an' partly because I needed him. I took Tom inter my store fer clerk, an' a mighty good hand he proved. But although we tried every way to provide for the younger son, Dick wasn't to be held in a store. He'd work well for a bit an' then git as uneasy as a dog in a church, an' jump at the first chance to git away. Nearly every store in town hired him, one time an' another, an' every one give him up as a bad job.

He hung around the billiard room, an' beat every man that tackled him! He played card games all night in the little back room at the saloon, an' smoked cigars all day. The widder tried every argyment, but it didn't work. She cried, but it only made him bad-tempered, though he'd cry with her by the hour, an' say as how he knew he was bad to her an' no good to nobody else. An' then he'd dry her eyes, an' kiss her wrinkled cheek, an' tease a dollar out o' her to pay for more billiards an' cigars an' drinks.

But Tom worked away manful an' came nigh bein' the support o' the whole fam'ly. He allus had a cheery word for his mother an' a kind word for Dick when he went home from his work, and the whole village was proud o' him, for he didn't seem to have a fault on earth. He didn't drink ner smoke ner play games, an' his week's wages was tossed inter his mother's lap every Saturday night.

So matters went on till '78, when the gold fever broke out fresh in Colorado, an' the papers was filled with the news of the big strikes made every day by poor men who woke up to find themselves rich. It was the talk o' the hull town, an' 'specially the little crowd that congerated in the back room o' the saloon. An' no one listened to the stories more eagerly than Dick Weemins. For once he read the papers reglar, an' never could talk enough about the gold diggin's. He wasn't often a hard drinker, but durin' those days he was drunk more'n once, an' one afternoon I saw Tom stop at the saloon as he were goin' home to supper an' come out arm and arm with his brother. He didn't scold or abuse him; but jest led him home an' put him to bed.

The next mornin' there was a conference at the widder's, an' soon after she came down to the store to ask my advice. It seems Dick had asked her to let him have the thousan' dollars she had been savin' for him, to go to the gold diggin's with. He promised to brace up an' be a man if she would; an' agreed, in case he failed to make his fortune, never to ask her for another dollar while he lived.

To her su'prise Tom had sided with his brother, sayin' as he thought it might be the savin' of him, an' that Dick would never need the money more'n he did then. For my part I were puzzled what to advise, but I told her I thought it was like throwin' the money away to let a lad like Dick go to the gold fields with it.

That settled the matter, as it only needed a little opperstion to induce the widder to agree; an' one fine mornin' Mister Dick, dressed up in a new suit o' store clothes, an' lookin' handsome an' happy, bid goodby to us all, an' left for the far West to make his fortune.

The same train that Dick Weemins went away on, Parson Bullum's daughter got off o', bein' jest back from boardin' school; an' I think Tom Weemins fell in love with her on the spot. She was a bright, lively little girl, was Bessie Bullum, an' somethin' of a beauty, too, in her way. She'd learned new-fangled notions at boardin' school, an' dressed as dainty as any lady in the land. Her hair was yeller as gold an' her eyes as black as night—a combination I was allus opposed to in a woman. But Tom Weemins didn't think so, an' he begun to pay attentions to her in a way that soon set the tongues o' the hull neighborhood a-waggin'.

The girl took it very easy an' quiet, as if it was jest her due, an' bein' the queen among all the town girls it was only 'natch'al that the most promisin' an' han'somest young man in town should make up to her.

The widder was kind o' lonely them days, bein' as how Dick was away at the diggin's an' Tom spendin' every spare minnit with Bessie, but she bore it very meek, as, indeed, she did all her trials; an' she looked very happy an' pleased when Tom told her one mornin' with a glowin' face an' sparklin' eyes, that Bessie Bullum had promised to be his wife.

Then the widder give him the other thousan' dollars, sayin' he had as much right to his share as Dick had; an' he bought the little store across on the

corner an' put in a new stock, an' a bran new sign over the door with his name on it in big letters. Trade begun to come his way, too, an' for a little while there was nothin' to mar the widder's contentment, 'cept that she never heard a word from Dick. O' course she allus hoped he was doin' well, and as he never was much of a letter writer she said as she couldn't expect that he'd stop up suddin' like, in the midst of diggin' gold, an' let her know how well he was doin'.

So things went on smooth enough for a time, but the first blow of all the widder's troubles wasn't long in comin'. A theater troupe played in town for a week, an' Bessie Bullum went every night, an' got pretty well acquainted with the actor folks. Tom never suspected there was anythin' wrong in the acquaintance till 'bout a month afterwards, when he got a letter from Bessie sayin' she had run away an' joined a troupe, an' that he must never expect to see her again.

He didn't take the blow as a man should. We all tried to tell him that a woman o' that sort wasn't worth worryin' about; but he only stared at us with a white face an' a dead look in his eyes as if he didn't take in what we was sayin'.

Instead of goin' home to his supper, as usual, he dropped in to the saloon, an' when he come out late at night he was dead drunk, an' jest able to stagger home. From that time on he was more often drunk than sober, an' they say as how the father was once a drinkin' man, an' it come natch'al to both the boys, only the widder's influence had allus kept Tom from it before.

Trade begun to drop away from the Weemins store, an' matters looked pretty black for the widder. Then come the next blow. Joe Harris, one of our boys that had gone out to the gold diggin's, come home agin, a sadder an' a wiser man, an' he brought full reports of the doin's of Dick Weemins.

It seems when he first got there Dick was full o' pluck an' hope; but after a few days at the diggin's he got tired o' the hard work an' begun lookin' round for a easier way to make a fortune. Gamblers was thick in them parts, and it didn't take long for Dick to git acquainted with 'em. You know the rest—Dick's thousan' dollars melted slowly away till he come outer the game one mornin' without a penny in the world. He borrowed a revolver of one o' the gang an' went inter the woods to shoot himself, but he thought better of it an' become a perffessional gambler instead. When Joe come home Dick Weemins had already won a name for himself, but not one to make the poor widder any happier. He was called "Di'mond Dick," an' had the reputation of bein' the slickest hand at fleecin' the innocents in all the camp.

Joe's story got pretty well circulated, an' by an' by it reached the widder's ears, an' from that time her courage seemed to leave her, for she broke down complete, an' cried by the hour. Often I'd go by the cottage on my way to dinner an' see her bendin' over her work by the winder, the tears fallin' drop by drop on the sewin' she had took in to support herself an' Tom. You see the poor soul had set her heart on Dick's makin' a man of himself, for he were her fav'rit son an' the apple of her eye, so to speak. An' so his downfall cut her up more than Tom's, though that chap was as bad as he well could be. I don't believe he ever drew a sober breath, 'til one day he come down with the snakes, an' at the same time the sheriff walked inter the little store an' took all there was left to satisfy the creditors.

I tell you when I thought of all the wretchedness that saucy little Bessie Bullum had caused, I could have took the mis'rabile girl by the neck an' strangled her with my own hands!

But that's neither here nor there. I'm stickin' to facts in this here story—or a tryin' to anyhow.

The widder couldn't sew much while Tom was wrastlin' with the devils the drink brought to him, an' so I took to leavin' a bit of a brown-paper parcel on her steps every night when I went home, an' I b'lieve it were needed bad enough.

After a time Tom got better. In a few days he was able to git out again, an' he headed straight for the saloon. That settled the matter, and a few of us got together an' kidnapped him an' took him to the ineb'rate asylum over in Jersey. Then the widder was took sick, an' the neighborin' women nursed her by turns till she recovered, but she got up a total wreck of her old self, an' unable to do any work. She was bent

over nearly double, an' her hand shook so bad that she couldn't hold a needle in it.

Well, I ask you, stranger, what could be done in such a case? The man that owned her house didn't push for the rent, nor even complain, but still he couldn't afford to give it up to her entirely; an' even if he did, where was she to get the money for groceries an' coal an' such like? So the neighbors held a meetin' an' decided she'd better go over to the county house, where they would care for her better than we could, an' where her last years could be passed in peace an' comfort.

The widder cried a good deal when I broke to her the verdict, but said meekly as how she was ready to go. Well, then I backed out, an' swore that as long as I had a cent on earth she should not go. This had its effect on the town people, but not on the widder. She suddenly developed a world o' stubbornness, an' said as it was false pride that made her shrink from the county house, but true womanly pride that led her to refuse such help from a stranger. As if, after all these years, I could be called a stranger to the Widder Weemins, as I'd once thought of for Missus Noll! But no argyments would alter her determination, so to the county house she went.

It must 'a' been a full year after, an' folks had kind o' forgot the Weemins fam'ly an' their troubles, when one mornin' as I come past the little cottage at the end o' the lane I saw a man settin' on the steps with his face in his hands. At first I thought it was a stranger. He wore better clothes than our townspeople, an' a silk tile on his head an' patent-leather shoes on his feet, and on the hand that hid his face a great di'mond glittered in the sunlight.

As I stopped in front of him he raised his head, an' I recognized Dick Weemins.

"Where's mother?" he asked hoarse-ly.

The house was vacant jest then, bein' for rent, an' I s'pose he'd jest come from the depot an' was s'prised to find the old place locked up. Now I didn't have much sympathy for this man, but as I saw the haggard an' worried look on his face I somehow didn't jest know how to break the news to him! So I stood fust on one foot an' then on the other an' tried to think it out.

"Where's mother?" he asked again.

"Over to the county house."

"My God! The county house! Where's Tom?"

"To the 'sylum—over in Jersey."

"Asylum? What asylum—and why?"

"Ineb'rate. Got the jams, an' was no good to nobody."

The man groaned an' put his face in his hands again.

Well, I felt as I couldn't help him any, an' so I left him settin' there an' went down to the store, an' got to work; but I couldn't forget the look on his face, somehow, an' I wondered what he would decide to do.

I heard by noon what he did do. He went to Parson Bullum's an' got the whole story straight, an' the parson didn't spare his daughter any either, but laid the blame for all the trouble at her door, where it belonged.

Then Dick rented the little house an' furnished it with all the comforts the town could afford. An' then he drove away in a pony-carriage that was sent down from the city, an' was so slick that it made all our folks stare their eyes out, an' when he come back the widder was settin' by his side with the happiest smile on her face I'd seen for years. The whole village was excited Weemins an' his queer actin's, an' when he druv up to the cottage there was quite a little crowd gathered, an' they give the old widder a kind an' hearty cheer. Dick's face flushed with a grateful look, an' the poor woman smiled an' nodded at the folks in quite her old way.

Soon after Dick come inter my store an' ordered up goods in quite an extravagant way. I noticed his di'mond ring an' breastpin was gone, an' he give me a twenty-dollar bill to take my pay out of.

I hesitated a minit, an' then, says I:

"Dick Weemins, is that gamblin' money?"

He looked at me surprised like; then says he:

"Gamblin' money? Yes; but as honest come by as any penny you ever touched."

"That it's not!" I spoke up, "for gamblin' an' honesty can't be spoke in the same breath."

"Indeed!" says he. How wonderful



Dick Weemins had changed, to be sure. "Friend Noll, all occupations, to my notions, is gamblin'—or speculatin', which 'mounts to the same thing. Did anybody ever question Gould's or Vanderbilt's money? an' ain't it all the proceeds o' gamblin'? For my part, I never robbed the widder ner the orphan, while these men have ruined thousands. Your own business is a speculation—a sort o' gamblin'. If you sell your goods at a profit, you win—otherwise you lose. The very money you give the parson is speculation; if he saves your souls, you win; if he don't you lose. In my business when a man had more money 'n he knew what to do with, I let him speculate, an' if he lost I won. Am I worse than you? Is my money less honest come by?"

I felt his reasonin' was all wrong, but it took my breath away, an' never bein' very strong in argument, I changed the bill an' said nothin'.

But this wasn't all the queer things that Dick Weemins did, by any means. He got his brother out o' the 'sylum, an' though he was nothin' but the wreck o' his old self, Dick undertook to build him up again. An' soon after the strangest thing happened of all his strange actin's. He went away for nearly a week, an' come back leadin' a thin, veiled woman, dressed in a shabby black gown, who cried every step from the depot to the widder's cottage. But when she got there she threw off her veil an' fell on her knees before Tom Weemins an' asked him to forgive her. An' he did, for they were married soon after; an' though we never heard the whole story, it got noised around that Dick had hunted up Bessie Bullum an' rescued her jest in time to save her from a grave in the river. An' all this was done by Dick Weemins—nothin' but a wicked gambler.

Tom Weemins's big store is the pride of the town now, an' draws trade for all the rest of us. An' his wife seems contented an' happy, though she never goes out inter society. The widder is a pretty old lady now, but she's passin' her last days in peace an' luxury, an' has a woman that does nothin' but wait on her.

An' Dick? Well, stranger, you know this story I've been tellin' took place sev'ral years ago, an' times has changed with the gambler since then. But if you go up to the big brick house at the top o' the hill yonder an' ask for the proprietor o' the woolen mills that has made our town famous, you'll meet the best-lookin' an' most respected man in the hull county. He's mayor o' the town, too, an' they talk o' runnin' him for Congress next term. And the curiousest part of it all, stranger, is that this man, the biggest gun as we've got in these 'ere parts, is no other than Dick Weemins, the reformed gambler!—National Magazine.

A poor man lay dying, and his good wife was tending him with homely but affectionate care. "Don't you think you could eat a bit of something, John? Now what can I get for you?"

With a wan smile he answered, feebly: "Well, I seem to smell a ham a cooking somewheres; I think I could do with a little bit of that."

"Oh, no, John, dear," she answered, promptly, "you can't have that. That's for the funeral."

Reflections of a Bachelor.—An engaged girl may feel awfully sure of everything, but she doesn't eat many onions till after she gets married.

After a girl has once decided that she won't have a man if he asks her, she will never forgive him for not asking her.

No girl ever respects a man much till he has made her lose her temper.

When a rich girl's hair looks like streaked molasses candy it is said to be the color of spun gold.

Down at the bottom of every woman's prayer is a reminder to the Lord that He knew she has to put up with so much from her husband.

Mrs. Smidelle—"Georgy, you come right into the house this minute, and don't let me catch you out again this evening."

Georgy—"You hadn't oughter boss me around before folks in that way, ma; folks 'll think I'm your husband."

Judge Watts, of Missouri, who owned the celebrated Hereford bull, Beau Donald, has sold him to Mr. Curtis, of Kentucky, for the reported price of \$1,000. The beef breeds are coming to the front.

## The Dairy.

We have a complete Dairy and Farm Creamery in constant operation on the Experiment Farm at Climax, Mich. This is personally conducted by J. H. Brown. All dairy correspondence should be sent to Climax, Mich.

For the Michigan Farmer.

### FARM BUTTER MAKING.

I have just been reading friend C. P. Reynolds' article on producing and disposing of butter, and I think he has the right idea of success in butter-making. But I sometimes think that the poor butter-maker is a friend instead of an enemy to prices.

Now this last spring was very cool, and anyone could make a fair grade of butter all through the months of May and June, and our local markets were flooded with very good butter.

Some of my special customers were willing to take their chances of getting good butter at the common market, rather than pay me the few extra cents per pound that I asked.

But as soon as those hot days came, they thought of me right away, and I can sell all the butter I can make from my door at quite a little above market price.

And if all those farmers that can't make good butter in hot weather were making a good article we would not get five cents a pound for good creamery butter. For the sake of civilization and humanity I wish every one would try to make first-class butter. But I do not believe it would improve the price.

What a true picture Editor Brown gives of the history of that crock of butter. I have tried hard to convince some that the cream would rise in 24 hours, and that their butter would be better to skim their milk sweet. But they think as they inherited their way of butter-making from their grandmothers it must be right.

I keep my milk in cans, summer and winter. I have not had any sour milk to skim in years. I let it stand 24 hours and churn two days' cream together. I like to make butter in hot weather, as the cream ripens just right without any trouble.

I will say to those that think they cannot make butter without ice that we have no ice or cellar. I have a good well of cold water, and that is all.

I believe that all anyone needs to make a fair article of butter is a set of milk cans. I prefer those that let the water come up in the center, instead of the common round can. Also a tank, properly covered, a thermometer and barrel churn.

My tank is enclosed in a box. I have another cover that fits close over the top of my tank. I cool and air my milk in small tanks or tubs before putting it in the regular large tank.

I change the water in the tank morning and evening, and in very hot weather at noon.

I have been a little amused over the defense of the old dash churn. But I believe that anyone who has used both will say that the butter is much better, and will keep better, when churned in the barrel churn.

Of course, if there was no over-churning in the dash churn, and the milk was drawn off in time to wash the butter in the small granular state, it would do very well, although I think we get more butter from the barrel, as the cream is churned more completely. There is no cover and slides covered with half-churned cream to rinse into the buttermilk.

I don't know what is prettier than a barrel churn partly full of butter in the granular state, when it has been well washed and is waiting for the salt. Every little golden shot is a miniature ball of butter.

I salt my butter in the churn, and pack it into small jars directly from the churn. After salting I put the cover on the churn and let it stand five or ten minutes before packing.

I have gone into the details, not expecting it will make interesting reading, but to prove that a common farmer's wife can make butter that is in good demand, with no conveniences in the way of milk house and cellar. But she needs a careful, self-respecting conscience that will not permit her to put off churning when she knows the cream is ripe, even if it is Sunday morning.

If one has ice one may be able to prevent the cream from getting too sour. But I believe in churning when the cream is just ripened.

I do not claim to know all about but-

ter-making. I am only an anxious student that is on the lookout to improve. But the proof of the pudding is in the eating, and my butter is in good demand at quite a little above the common market price.

I must describe my butter cooler, as it may help some who, like me, have no cellar. I have a half barrel set in a box, and the space between the barrel and box filled with earth. I have a close cover for the box and a cover for the barrel. I set a large crock in the tank or barrel in which I keep my butter jar and milk pitcher. My crock is closely covered.

By changing the water once a day I can keep my butter hard and in good shape.

Of course, one must scrub out the tank often, and by setting my butter jar inside of the large crock, closely covered, the water does not come in contact with the butter jar, which I think is not good for the butter. It is a makeshift, but one who tries it will be pleased.

Clinton Co., Mich. MRS. M. A. C.  
(We like to read such experience as the above, for it is just what will interest thousands of buttermakers who have not all the modern conveniences for doing dairy work.)

There are two opinions as to the effect more really good butter would have on the market price. If there was plenty of it, it would supplant much of the butter substitutes now being consumed, and the price might not go down to five cents.

Many people buy very little poor butter because they cannot eat it, and it is almost impossible to readily obtain first-class butter when called for. If these people could secure just what they wanted they would be willing to pay more for it and consume—say twice as much.—Ed.)

### DETAIL WORK IN BUTTER MAKING.

Detail work in butter-making counts for more than anything else. Butter-making principles are only guiding-stars to follow, and there is a mass of most careful detail work to fill in, if one would reduce the business to a money-making science.

To illustrate: An acquaintance of mine, who possessed nine cows of a mongrel breed, came home from a farmers' institute, and with a hurrah of enthusiasm, proclaimed to his good wife that he had learned the secret of making the quality of butter that everybody was raving about, and that brought the best price in the market. He was patronizing my cheese factory at the time, but withdrew to embark in the new dairy venture. With stiff neck, he saw only the goal and did not notice the obstacles at his feet, and consequently he hadn't gone three steps before he stumbled.

His first stumbling block was the milking pail; he forgot that it was necessary to have it immaculately clean, and some lurking microbes basking in the cracks and crannies of the receptacle knocked the sweetness all out of his milk. You see he had been patronizing a cheese factory so long that he was imbued with that popular fallacy—that any kind of milk was good enough to make cheese of.

Stumbling block number two was, that nine mongrel cows arose up and refused to give down anything but blue milk, and not any too much of that. He had never considered this phase of dairying while under the wing of a factory, where it was looked upon as a matter of course that all qualities of milk could be poured in at one end of the building, and golden cheese issue from the other.

He ran against a third snag in the shape of a churn that he confidently expected would automatically do what only skill and judgment can ever perform in the art of turning cream into merchantable butter. He stubbed his toe in a great many other places, and finally wound up by selling his first consignment of butter for fifteen cents a pound, where he had expected twenty-five.

I tell you that dairying in any form can never be made to pay by "fits and starts" in improvements. All have got to get right down to a steady basis of observing minutiae of detail in every department. A person who has been conducting the butter business along false lines cannot turn square about and make every step count aright for the first season or two. There is evolution in dairy experience as well as in other matters, hence it is impossible that a novice should blossom into a prize butter-maker all at once. Only by taking slow and careful steps, not

only the first day, but every day that milk is handled, cream skimmed and churned, and butter worked and salted, can this branch of dairying be kept at a paying basis.

One of the most successful lady butter-makers that I ever saw, performed her tasks with "clock-work" regularity. At 6 a. m. she was skimming the milk she had "set" the morning before. By 7 she had this out of the way, the pans emptied of their skimmed milk, and washed. At half past seven she had the fresh morning's milk from the dairy strained into pans that had been scalded and sunned the previous day. After breakfast, or by 8 o'clock she churned, and by 9 had the butter worked and salted, and the utensils washed, scalded and put to airing or sunning.

When the creamery system came into vogue, I distinctly remember that this lady, whose fame as a gilt-edged butter-maker was more than local, was offered \$60 per month to take charge of a new creamery, which she declined. Perhaps she could make no better butter than many of her neighbors, but she was so systematic about it every day in the week, month, and year, that its quality never varied. All those nice little details of work, that she faithfully observed over and over again, day in and day out, were dovetailed, as it were, into a butter quality that was standard, and that commanded a standard price in market. Yes, it pays to be noted for observance of detail work in butter-making.

GEO. E. NEWELL.

(How many of our brother dairymen use milk pails that have creases or seams into which milk can remain until dried; that cannot be washed or poked out by any ordinary process? We hope not one such pail is in use.)

But it is necessary to carefully examine all tinware often to see that no open seams exist. We find it necessary to take some tinware to the tinsmith, about once each year, and have such seams and cracks filled up even with solder.

There is nothing like system in over-looking and manipulating all details in daily dairy or creamery work, and the operator who best follows a practical system daily, without variation, becomes the "real thing" in expert butter making.—Ed.)



Mr. G. S. Foos, whose likeness we produce here, was born in Columbus, Ohio, in 1818; was raised on a farm and at the age of 17 went to Illinois, which was then considered the "Far West" and for 3 years learned by actual experience the hardships and privations of pioneer work in a new country. He later returned to Ohio where he engaged in the mercantile business in Logan County, afterwards removing to Springfield, Ohio, where he has resided ever since. He has always been active in business, mercantile and banking lines, and with his brother founded the Second National Bank of Springfield, which institution he served long and acceptably as cashier. Later on he engaged in the manufacture of agricultural implements, which line he has pursued for the past twenty-one years. Mr. Foos was the founder and is the present president of the Foos Manufacturing Company. These people are well known to our readers as the manufacturers of the celebrated Scientific Feed Grinder, Scientific Corn Harvester, Corn Mills, etc., etc., which have taken such a hold upon the public because of their great utility and the economy resulting from their use. Mr. Foos has always taken a deep interest in agriculture and has devoted many years of his life to the production of machinery which would increase the value of the farmer's crop and reduce the hard labor necessary to produce it.

THE Eureka Fence Machine Co., of Richmond, Ind., manufacture a machine that is practical and right, and the fact that they guarantee it to give satisfaction or refund the money makes it safe for our readers to try it. They are a responsible firm.



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**THE MICHIGAN FARMER**

State Journal of Agriculture.

**THE LAWRENCE PUBLISHING CO.,**

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DETROIT, SATURDAY, SEPT. 4, 1897.

This paper is entered at the Detroit Postoffice as second class matter.

**THE MICHIGAN FARMER AT THE STATE FAIR.**

We will have a tent 30x45 feet immediately in front of the main building upon the fair ground at Grand Rapids and we extend a cordial invitation to all of our subscribers and friends to visit us there, and as we have plenty of tables and chairs, it will make a convenient place to eat lunches, and lunch baskets and wraps may be left in the tent while parties are seeing the different exhibits. Everything will be done to make the place convenient for you and we hope you will make it your headquarters while you are at the fair, and if you have any friends who are not taking the paper bring them along and we will endeavor to convince them of the desirability of becoming regular readers of The Farmer.

**A FEW WORDS TO THE FARMERS OF THE STATE.**

We expect that this issue of The Michigan Farmer will fall into the hands of a number of farmers who are not now regular readers, and perhaps never have been. To those it reaches we ask a careful examination of its contents, that its merits as an agricultural journal may be fully realized. If you are interested in the Farmers' Club movement or the Grange, in stock-breeding or feeding, dairying, fruit-growing, or poultry-raising, then assuredly you will find much to interest you in its pages. Remember, this is not a special issue prepared for a special purpose, but the regular issue, no better than those immediately preceding it, and will be succeeded from week to week by numbers equally as well, or better filled, and with matter just as fresh and seasonable.

In looking over the various departments you will see they are in the care of capable men, that the correspondents who write for the paper are practical and experienced men in the lines they write upon. Attention is given to every line of investigation and thought which has a tendency to the advancement and progress of agriculture and its kindred arts. To this end questions relating to political economy, to

financial and commercial subjects, and their relation to the condition of agriculture and the agriculturist, are freely discussed.

The importance of crop and market conditions to the modern farmer has grown from year to year with the development of this continent and the extension of transportation facilities. The markets of Liverpool, Berlin and Paris are now as closely studied as those of Chicago and New York, for each affects and influences the others. For this reason the farmer has to keep informed of the market conditions which affect the value of his crops, or he will certainly suffer severe losses through lack of this knowledge. The Michigan Farmer each week devotes a great deal of space to carefully prepared market reports, which include reports from governing markets of the various articles produced in the State, as well as the Detroit market. This season the markets are of greater interest than usual to the producer, because of their frequent and wide fluctuations; and this interest will run through the entire crop year, owing to the great changes which are taking place in the business conditions of the country. If you want to keep posted on the market value of your live stock, grain and special crops, wool, dairy products, etc., etc., then you should subscribe for and read The Michigan Farmer from week to week. It will save you dollars for every cent it costs, besides being a welcome visitor to every member of the family.

To the women and young people of the household The Farmer has always commended itself, for the departments in which they are always interested are helpful, entertaining, and their moral tone maintained at a high standard.

To sum up the whole subject, The Michigan Farmer is a business paper for farmers, published and edited to aid the producer in every direction in which help is needed, and as an instructive and entertaining visitor to the home circle. How well it has succeeded in the past thousands of Michigan farmers and their families will testify, and we propose that the coming year shall see it better in every respect than ever before in its history. Join the ranks of its readers and see if this promise is not more than fulfilled.

**THE IMPORTANCE OF OUR HOME MARKETS.**

The great importance of the home market to American farmers is clearly shown in some figures furnished by the United States Treasury Department regarding the consumption of farm products as influenced by the material condition of the masses. According to the department, the wheat produced in the United States in 1891 amounted to 611,000,000 bushels, the largest crop on record. At the close of 1890, the average consumption of wheat per head of the population was 6.09 bushels, about as large as ever known. At that time the labor of the country was fully employed, and at very remunerative wages, as compared with former periods. Then came years of depression, with factories, workshops and mines closed, or running with few hands and on shorter hours. The result is shown in the lessened consumption of wheat, which fell off to 3.41 per head, a difference of 2.68 bushels. In 1894, the population of the United States, as shown by the school census, was 68,275,000, and this difference of 2.68 bushels per head reduced consumption by 182,000,000 bushels, or more than the entire exports of the year. No wonder the price of wheat fell until it did not pay the cost of production.

The results of underconsumption on

the corn crop were equally disastrous. In 1890 the consumption of corn per head was 32.09 bushels, and in 1896 it reached the low average of 14.73 bushels per head, showing a shrinkage in the home market that year of 1,229,286,000 bushels, as compared with 1890. No wonder corn was cheap. Exports could not make up for this enormous shrinkage.

The same conditions affected the consumption of potatoes in even a greater degree than wheat and corn. The idle laboring men in the great cities attempted to eke out their resources and keep starvation off by cultivating small patches of potatoes on land donated for that purpose. The result was that the large potato crop of 1896 was a heavy loss to the growers, and while many were nearly starving for food in the cities, many farmers could not afford to harvest and market the crop, leaving it to rot in the ground. What was needed was enough money in circulation to enable the laboring classes to pay for what they wanted. The closing of the avenues of employment to so many resulted most disastrously to the farmers as well as themselves.

The figures given above show conclusively that the home market is the great reliance for the producer. If labor is well employed and at fair wages, consumption is stimulated, and even large crops are taken care of so well that values are not affected. With the small wheat crop of last year, had consumption been up to the average, there would not have been much left for export after home demands had been met, and the result would have been that higher prices in this country would have compelled an advance abroad.

It all goes to show the intimate relations which exist between all classes of citizens, that the prosperous condition of one is surely reflected on others, and that the interests of the farm and the factory are so closely united that anything which affects the well being of one must be felt by the other.

Looking conditions fairly in the face to-day, they certainly promise that the days of idleness and depression, underconsumption and low-priced products, are over for some years, and that the home market will hereafter resume its important influence upon the value of the staple products of the country.

The Mark Lane Express, of London, in reviewing the crop situation in its issue of Monday last, says the wet weather has seriously delayed the harvest and that the new wheat is bound to suffer. Continuing, the paper asserts that advices show the Russian crop to be decidedly below the average, while the American crop is probably above the average. In this connection the Mark Lane Express says that information regarding the American crop appears to be kept back and adds that the experience of recent years "leads to the American government advices being placed upon a much lower level of authority than those of European cities."

And now the British authorities in the East Indies are finding plenty of occupation in fighting the belligerent hill tribes, which have risen in rebellion. It has always been a wonder why the millions of that country have been content to act as hewers of wood and drawers of water for the handful of British officials who plunder them. Millions of these people have died from starvation the past summer, and thousands more will be slaughtered to quell their rebellion, all to the end that Great Britain may accumulate wealth and Christianity be established. What does the lives of a few millions of pagans amount to anyway in comparison with these desirable objects.

**THE STATE FAIR.**

The forty-eighth annual fair of the Michigan State Agricultural Society opens at Grand Rapids on Monday next at 9 a. m. when every thing is to be in place and all exhibits ready. This is rendered necessary because Monday being Labor Day, a large delegation of workmen are to visit the fair. A letter just received from President Ball says of the prospects:

"Everything is looking well for a successful fair, both financially and as an exhibit. The people of Grand Rapids are wide-awake, times seem better, people are getting more confidence in the future and feel more like taking a day off. The society is nearer out of debt than it has been for many years. The board is using economy in its expenditures, and the hope and faith is strong that at the close of the fair next week the society will be entirely out of debt—and this is in the face of hard times and without aid from any quarter."

We hope President Ball's predictions will be more than fulfilled, for Michigan wants and should have a great and successful State Fair. Her agricultural development requires it.

**SELLING DIRTY SEED WHEAT.**

To the Editor of the Michigan Farmer.

I send you enclosed a sample of wheat said to be Dawson's Golden Chaff, also a sample of foul seed picked from 10 pounds of same after it had been re-cleaned. A casual observer would not notice anything wrong; in fact I did not myself, and would have sown it had not my attention been called to it. You will notice that the weed seed are set very firmly in the seed cup on the end of the broken pieces of stalk, and here lies the danger; the thrasher failing to knock the seeds loose, re-cleaning will not take them out. It is red root without doubt. I purchased the wheat from which this sample was taken from the proprietor of the Haddington Stock Farm, Ionia, Mich. The parties acknowledged the presence of red root seed when closely questioned, but failing to get it out by re-cleaning they are sowing it broadcast throughout the State, one party having purchased 500 bushels, and others a great many smaller amounts. A number of my neighbors have bought from the same place; one of them bought 20 bushels; finding out what he had got, on his way home he took it to the elevator and sold it at a loss of \$2 besides a day's work with team, and then went home a wiser man.

Now I have faith in the proprietors of the Michigan Farmer, and believe it is their intention to promote honest farming; but I do believe that advertisers of farm seeds in its columns should guarantee the same free from foul seeds. I would be glad to have you publish this so that my brother farmers may know what they have got before it is too late.

L. B. STRUBLE.

Mr. Struble sends us a sample of the weed seed he took out of his wheat, and some of the wheat after it had been cleaned. The weed seed, principally red root, must have been present in large amounts if this lot was taken out of ten pounds. Besides the weed seed the wheat was mixed, a certain amount of red wheat being scattered through it. Altogether the seed was in a disgracefully foul state, and the farmer who sent it out should be held accountable for his criminal negligence or dishonesty.

The Farmer does not want advertising from parties who will not keep faith with our readers. We believed the parties mentioned would do this or their advertisement would never have appeared in our columns.

We are advised that another party who advertised Dawson's Golden Chaff at \$1 per bushel in The Farmer, refused to fill orders received while his ad. was running at less than \$1.25, but held on to the money sent him until he could send a letter and get a reply, thus keeping the party from sending the order to someone else. It is not a fair way of doing business, and



The Farmer will not take advertising from such parties provided it can find out beforehand that they use such business methods.

This whole seed business needs regulating by law. Everyone, be he seed merchant or farmer, who sells seed of mixed varieties under the name of one variety, or sends out seed full of foul weeds and dirt, should be made responsible for all losses and damage to the purchaser. The farms of the State are being covered with weeds through the rapacity and dishonesty of unprincipled parties, who seem entirely devoid of moral principle.

We have received the premium list of the Lenawee County and Southern Michigan District Fair, which is to be held at Adrian September 20 to 24 inclusive. Half rates on the Wabash and Lake Shore & Michigan Southern railroads have been secured, and with good weather a great fair will be held in this prosperous section of Michigan. H. H. Ferguson, Adrian, is secretary, who can furnish exhibitors with all information regarding the fair.

It is reported that the short crop of barley is inducing speculators to buy all they can, expecting big profits later on when brewers and maltsters come into the market for supplies. There is a light yield in this State the present year, and we think quite a reduction in acreage as the result of the low prices of the past two or three years. It has not been a favorable season for this grain, and we look for more or less damage to it from discoloration.

Under date of August 31 reports of frost came from a few points in southern Minnesota and North Dakota. Late tender crops and garden truck were killed or badly damaged, but none of the reports speak of very serious injury to corn except one from southern Minnesota, which represents the damage as being heavy to corn and late flax. Wheat is unaffected, being mostly harvested.

Director J. R. Sage, of the Iowa weather and crop service, has returned from a trip over that state inspecting the corn crop. Ten days ago he became alarmed because of the cold weather and started out to make a personal investigation. He finds his worst fears realized. There will be a big shortage of Iowa corn, and unless warm weather comes, a partial crop failure. He finds the stand poor, and thinks at best that 600,000 acres will not be harvested. Under favorable conditions the Iowa crop will be 25 per cent short, and it may be only half a crop. The cold rains of the past few days have been very discouraging. He estimates the total loss in the state at 50,000,000 bushels.

The authorities of Van Buren county are again after the violators of the local option laws, nearly a dozen suspects having been arrested last week. Several went to jail, while a number were bound over to appear before the circuit court.

#### CHANGE IN PRICE.

As we find it is causing quite a bit of delay and some mistakes in pre-paying the freight upon the No. 1 and No. 2 repairing outfit, we have decided to reduce the price of the former to \$1.75 and let purchaser pay freight, which in most instances will be 25 cents or less.

These rates will go into effect Sept. 6th, and all orders received hereafter, including those from that date, will go under new prices.

#### Industrial Fair at Toronto.

For the Victorian Era Exposition and Industrial Fair at Toronto, Ont., the Grand Trunk Railway System will sell tickets from all stations in Michigan August 31st to September 10th inclusive, to Toronto, at one fare for the round trip; and on September 6th and 8th at \$4.70 for round trip all good to return until September 13th, 1897. For particulars call on or address any agent of the system.

#### THE MICHIGAN FARMER WILL BE SENT

Every Week Until Jan. 1st, 1898, for Only 20c.

We make the above offer in order that farmers not now taking the paper may at a nominal cost become acquainted with it and determine whether it is not of sufficient value to be taken and read regularly. We must rely upon our friends to place this offer before their neighbors who are not subscribers and by telling them of the offer and explaining in a few words the advantages secured by reading the MICHIGAN FARMER regularly almost anyone can in a short time secure several new subscriptions, and anyone with the time to give to it can make it pay them well, as we allow liberal commissions to agents.

Sample copies for distribution will be furnished free to all who will request them or we will mail the paper direct to any list of names sent us.

To every person who will send us 8 new subscribers for the balance of the year with \$1.00 to pay for them we will send the MICHIGAN FARMER free for one year. The orders may be sent as fast as they are taken and if the required number is not secured we will allow agents' commission upon all sent.

We want an agent at every fair, picnic, grange or farmers' club meeting, and furnish all supplies needed free, also desire an agent to represent us during the entire subscription season at every postoffice in this and neighboring states where we are not at present represented. Write us regarding any meetings you can attend and if they are not taken they will be reserved.

Send all orders for subscriptions and supplies to

**MICHIGAN FARMER, Detroit, Mich.**

#### NEWS SUMMARY.

##### Michigan.

A D., L. & N. train was wrecked at South Lima last Friday night and about thirty persons injured, a few of them fatally.

Lieutenant-Governor Dunstan has been appointed president of the mining school board at Houghton, to succeed Judge Jay A. Hubbell, resigned.

A company is said to have been organized at Lansing which will secure a plant for the manufacture of horseless carriages. The capital stock is \$50,000.

The first beet sugar crop ever raised in the State has just been harvested at Saginaw, and experts pronounce the quantity and quality of the crop far beyond their expectations.

A Kalamazoo farmer reports the disappearance of seven fine Shropshire bucks from his flock one night last week, supposed to have been stolen. He valued them at \$200.

A few Benton Harbor capitalists have organized a stock company with capital of \$50,000, to be used in prospecting in the gold fields of Alaska. They contemplate sending about twenty men to the Klondyke region next spring.

Several towns in the State, among them Hudson and Cadillac, announce their intention of holding street fairs this fall instead of the regular county fairs. Kalamazoo is also investigating the merits of the plan and thinks so well of it that preparations have been begun for a grand street fair in the near future.

Dairy and Food Commissioner Grosvenor has announced that a thorough investigation shows the numerous complaints received by his department concerning the ultra-marine coloring in sugar to be without foundation. The state analyst found the quantity of coloring matter to be so small as to be of no consequence.

A farm barn near Galesburg and this season's crop of grain were destroyed last week by the explosion of a dynamite cartridge, which had been placed in a bundle of grain by some unknown miscreant. The bundle was fed into a threshing machine, which resulted in making a wreck of the machine and severely burning the man who was doing the feeding.

Elmer E. Struble, cashier of the Farmers' bank, of Shepherd, was shot and fatally wounded by burglars at 4:30 o'clock last Saturday morning, and the bank robbed of all of its cash. The unfortunate cashier evidently made a strong fight, as he was shot four times. Before expiring he made a statement to the authorities, naming his assailants, but it is now evident that he was not rational at the time and the statement has hindered rather than helped the officers in securing the guilty parties.

Fruit growers around Benton Harbor and vicinity are considerably pleased with the report that the commissioner of health of Chicago is to begin a strict enforcement of the ordinance which prohibits the covering of fruit with colored screen covers.

The Ward sheep ranch, near Pontiac, is said to be growing some of the best corn that can be found in the State. The land was thoroughly manured by the 25,000 sheep and is now

growing 150 acres of corn that will yield heavily.

##### General.

A. Hankins, a noted Chicago gambler and horseman, was strangled to death in a folding bed last week.

The Farmers' National congress and Pan-American Agricultural Parliament was held at St. Paul the past week. A good number of delegates were in attendance, several being from foreign countries.

The world's pacing record of 2:00 1-2, held by John R. Gentry, was appreciably lowered last Saturday by Star Pointer in a trial against time over the mile track at Readville, Mass. He covered the mile in 1:59 1-4.

The first mines in the Pittsburg district to be started in the attempt to break the big coal strike will be those of the Pittsburg and Chicago Coal Gas company, on the Wheeling division of the Baltimore & Ohio railroad. Arrangements were made last Saturday for putting the mines in operation, but the company prefers to have the old men remain, and for that reason has decided to defer action for ten days.

The annual G. A. R. encampment was held at Buffalo, N. Y., last week. The encampment goes into history as one of the best attended that has yet been held. The parade was in many ways the best of its kind, nearly 50,000 veterans being in line. The presence of President McKinley added interest to the occasion and was productive of great enthusiasm. Cincinnati was selected as the place for holding the encampment next year, and Gen. J. P. S. Gobin, of Pennsylvania, was elected commander-in-chief for the ensuing year.

#### Foreign.

The Princess Ingeborg Charlotte Frederica, second daughter of the Crown Prince Christian of Denmark, was married at Copenhagen last Saturday to Prince Charles, duke of Westergotland, third son of King Oscar II., of Norway and Sweden.

Steamer Cheang-hy-Bteng, bound from Penang or Areca Island, in the Straits of Malacca, off the west coast of the Malay Peninsula, for Japan, foundered in a typhoon last week. Of the thirty-two members of the ship's company twenty-one drowned. The eleven survivors experienced the most terrible suffering from exposure in open boats for five days under the intense rays of a tropical sun and with no water.

#### INTERCHANGEABLE MILEAGE TICKETS.

A new form of Thousand-Mile Ticket, the result of careful consideration and discussion between the railroads and their principal patrons, will be placed on sale September 1st, at all important Michigan Central ticket offices. The ticket is sold for \$30.00 with a rebate to the purchaser of \$10.00, when used up in compliance with its conditions and is accepted on all the lines in the Central Passenger Association, forty-five in number and covering a vast extent of country.

No mileage book has yet been devised so acceptable to all parties concerned and so advantageous to the holder. Every one who is likely to travel a thousand miles in a year should avail themselves of it, and should consult the nearest Michigan Central ticket agent.

When writing advertisers please mention that you saw their advertisement in the Michigan Farmer.

#### Farming Lands in Montcalm County

Good lands near good markets and railroads. County is well settled and has fair roads. For particulars call on or address STEVENS & TOWLE, Montcalm County Abstract Office, Stanton, Mich.

#### SEED WHEAT FOR SALE.

Long Amber—tested three years. Bald, white wheat, stiff, strong grower. Eleven varieties grown last year. This is my leader. Longest head known. \$1.50 per bushel or \$1.25 in 5 bu. lots. Cash with order. Sacks free. JAS. T. PEEK, Rives Junction, Mich.

#### DAWSON'S GOLDEN CHAFF WHEAT

For Sale for Seed, by CHARLES E. HOLLISTER, Laingsburg, Mich.

#### SEED WHEAT.

Dawson's Golden Chaff for sale. Strictly pure \$1.25 per bushel, on cars at Sterling; bags 15c. PETER GILBERT, Sterling, Arenac Co., Mich.

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Send for book on patents FREE. It pays to protect your ideas at once. FISK & THOMAS, PATENTS AND PATENT LAW, 42 and 43 Hodges Building, Detroit, Mich.

#### SEED WHEAT.

We sell pedigree Early Genesee Giant Seed Wheat at \$2.00 per bushel, also Mammoth White Winter Rye. Send us your order, also write for circular and price list of Wheat, Clovers and Grass Seeds.

The Henry Phillips Seed and Implement Co., 115 and 117 St. Clair St., Toledo, O.

Illustrated circular of our Angoras, with Long Hair and Big Tails. Great Pets. FREE. WALNUT RIDGE, FARMS, Box 214, BOSTON, MASS.

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## OUR LATEST CONTEST

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- |                 |                 |
|-----------------|-----------------|
| 1-OYEKWRN       | 21-THULDU       |
| 2-OKBYRONI      | 22-ATSAUG       |
| 3-AAILLHPED     | 23-XNLS         |
| 4-STOSILU       | 24-SHIPME       |
| 5-MELTIOABR     | 25-ATLPSU       |
| 6-BOONTS        | 26-EONINPSLIMA  |
| 7-TINNINICAC    | 27-VENEDCALL    |
| 8-AOERESNLWN    | 28-KENNOTT      |
| 9-BUTTISHPGR    | 29-OATNDY       |
| 10-IMKUALWLD    | 30-REFGILNSPID  |
| 11-NFACSOICSANR | 31-LOPRATDN     |
| 12-BDTIOTE      | 32-TTAAANL      |
| 13-SILVELLIUO   | 33-OFATHDRR     |
| 14-THERERCOB    | 34-MSEVENIOD    |
| 15-BLUMSCUO     | 35-ERWKAN       |
| 16-TROCWBRES    | 36-OAHAM        |
| 17-GOICCHA      | 37-NRDVEE       |
| 18-ATUIC        | 38-DASNNIHILOPA |
| 19-MEALS        | 39-NBAALY       |
| 20-MIAREL       | 40-DOVERPEIN    |

Here is something new, read very carefully, you may get \$100. in cash, or a Parlor Organ, or a Bicycle, or a Gold Watch, or a Garnet and Diamond Ring. We print here a list of "words." These are sets of letters, jumbled, from which can be made the names of 40 Cities in the United States. For example, OYEKWRN can be transposed into NEW YORK and so on down through the list. It will be found a hard study but if you stick to it you may get 20, or even 30, or perhaps all of the words correctly.

#### GRAND PRIZES

To the person who sends a complete correct list, we will give \$100. in money. To the person sending the next largest list, we will give a \$100 Bicycle (lady's or gent's), for the next largest correct list, we will give a beautiful Parlor Organ, for the fifth largest list we will give a fine Gold Watch. If more than one person succeeds in making a complete correct list of words, the first prize of \$100. will be divided between those who send the nearest lists. Also to each and every person who succeeds in making out at least 20 correct names of cities, we will give, absolutely free, as a Prize, one Elegant 3 stone solid gold plated ring, set with "2 Garnets and a Diamond." Ring is superb in its beauty. It is equal in appearance and in every other respect to a GENUINE \$90.00 RING, except intrinsic value. The Ring is of gold plate, the settings are three carefully selected stones of exquisite brilliancy. They are made in such exact imitation that they defy experts. We have heard of rings similar to this being pawned for big sums, we have seen rings just like this, for sale in New York, Boston and Chicago stores, as a "big bargain," at \$2.50. Therefore, when you get this ring as a Prize for making out the names of 20 cities correctly, you will secure a most desirable and costly present. It doesn't matter where you live, you may enter this contest. With your list of names you must send us a silver quarter or 25 cents in stamps to pay for HOME TREASURY one full year. If you are already a subscriber, your subscription will be extended a year from date of present expiration or you may have HOME TREASURY sent to a friend. It is a handsome illustrated monthly magazine, every issue replete with charming stories, sketches, free contests open to subscribers only, and numerous other entertaining features. When you subscribe, your life will be insured by us for 1 year, you will also be entitled to the benefits of Accident Insurance. These features alone are worth many times the price of subscription. Don't send a list of words, unless you send your subscription with 25 cents silver or 25 cents stamps. Prizes Sent Same Week that your list is received. Money promptly returned if you are not delighted. Address: HOME TREASURY CO., 233 Water St., AUGUSTA, MAINE.



## The Household.

CONDUCTED BY MRS. ELLA E. ROCKWOOD, FLINT, MICH.

We should be pleased to have any of our readers who take an interest in household topics, send in their views and opinions upon any subject which is under discussion, or which they wish discussed. The invitation is general, and we hope to see it accepted by many. Address all letters for The Household to Mrs. Ella E. Rockwood, Flint, Mich.

### THE MOTHERLESS GIRL.

Oh! why cannot mothers look down from above,  
And shelter and shield with their infinite love  
The orphaned and desolate left on the earth  
Too lately esteeming and knowing their worth?  
If Heaven ever weeps at a sight that is sad—  
A sight that would make its glad music less glad,  
'Tis when in the roar of the world's busy whirl,  
It weeps at the sight of a motherless girl.

No love of a father, though tender and warm,  
Can shelter and shield from the world's beating storm.  
What touch is so tender, what voice is so dear  
As the touch and the tones of the one we revere?  
What hand can smooth for us the pillow of care,  
Or pluck from our pathway the thorns that grow there?  
God pity and guide in the world's busy whirl  
That orphan of orphans—a motherless girl!

Ah! priceless and placeless the mother that left  
Alone and defenseless a daughter bereft.  
In hours of affliction, in seasons of care,  
When burdens grow heavy—too heavy to bear:  
Oh! where in that season of sorrow can go  
The heart that is tempted to yield to its woe?  
Save God there's no strength 'mid the world's busy whirl  
To shield and to shelter a motherless girl.

Though far she may stray from the ways of her youth,  
From purity's paths, from sweet virtue and truth;  
Though sin may take from her the flower of her fame,  
And plant in its place the hot blister of shame;  
Yet God in his mercy writes after her name,  
In the book of her guilt and the record of blame,  
Till the judgment the tear-blotted page shall unfurl  
This token of pardon—"A motherless girl."

### MARCHING MUSIC FOR THE SCHOOL.

The cordial welcome extended to "A New Friend" in a recent issue of The Michigan Farmer gives me courage to tap at the door of your harmonious Household. While I am not a farmer's daughter and with no prospect of becoming a farmer's wife, my vocation (teaching) keeps me a great deal in the country, and I really feel more at home there than in the village. Should the editor's heart and hands be not too over-crowded to receive me I should like to come often to the country women of Michigan with pleas for the betterment of the district schools.

Great advancement is apparent when comparing our schools of to-day with those of 25 years ago, but with the help that each woman in the district could render, if she would, by lending her influence and her presence to the schools and to the teachers, we could not help advancing with rapid strides to a much higher state of perfection.

I have a dear friend who lives on a farm, does her own housework a goodly share of the time, pursues a course of study each year, and teaches a class in music. Upon her tables are the latest books and magazines, and upon her piano the newest music. Occasionally I find very pretty marches among them for the schoolroom. Unfortunately I have had no instrument in my school for the last two terms, and no one knows how much I have missed the music. Certainly "musichath charms to sooth the savage breast," for my wildest boys are amenable to its influence. There is no accomplishment that our girls need be more proud of than the ability to go to the organ and play a pretty march or song when called upon by the teacher.

I hope our girls all over this great State are improving a part of their vacation in learning some pretty two-step marches. I have some new ones that are especially adapted for school marching—they are so melodious, yet simple and easy of rendition—and I will give the names of them. Oftentimes my girls have said to me, "Miss R.—, I would be glad to play for morning exercises if

I knew something new and pretty, but I just hate those old things, and I don't know what to buy, for when I do, it is never pretty after I get it." So here, my dear girls, are two that you may depend upon to be pretty, and I hope your mothers will encourage you to learn them, so that you will be able to play whenever requested to do so. They are: "Massachusetts Military March," and "Twentieth Century Two-Step," both composed by Dox Cruger. Any music store will get them for you if they do not happen to keep them in stock.

CORAL ROBERTS.

### TEACH THE GIRLS TO COOK.

I want to tell the readers of the Household two incidents which I have witnessed this summer in regard to girls learning to cook. One of my neighbors was taken sick in haying time. She has an only daughter, who was at home spending her vacation, and I went over to help her one morning. I found her busy baking. She had everything in order. The first thing she made was a layer cake, then a molasses cake, then a large loaf of brown bread. The same bowl and cups for measuring during the entire operation, so when she got through it only took a few minutes to wash up the dirty dishes.

The next visit was to two young sisters, whose mother had been called away from home by the sudden illness of a relative. The girls knew nothing whatever about work, but their kind father was there and he was sure they could get along, and they did as long as the mother's baking lasted. But when that was gone came the "lug of war." They tried cake and pie, then bread, and the pigs fared well. They used so many dishes in baking that when they saw the pile to be washed they were discouraged. Several other attempts resulted the same. They then resolved to call on their friends and get some instructions. They proved very apt pupils, and the future bakings were successful.

The mother was gone three weeks and the girls put up fruit and got to be quite famous cooks—in their father's eyes at least. When I saw the worry, the tears and the needless work I thought how much better it would have been if the mother had taught them how to do such work.

As the time for school draws near I hope every mother will remember our editor's warning and keep the little ones at home nights. Also see that they have some good books or papers to read, and games to play. That shortens the evenings and makes the children happy.

AUNT DEBORAH.

### SEPTEMBER FASHIONS.

No very noticeable changes are thus far seen in the manner in which our garments are to be fashioned. Long and slender is the rule for sleeves, plain or wrinkled according to one's fancy. All full length sleeves extend well down over the hand, finished frequently in a point on the upper side. Lace may be frilled on around the bottom if desired.

Some sleeves are slashed in square tabs at the hand and lace full on underneath.

All are full on the shoulder, this fullness ranging from that of the plain, rather scant leg-o-mutton style to ruffles and puffs extending well out over the shoulders. Some have double circular or pointed caps bordered with braid or lace gathered in at the arm's eye to stand out over the sleeve. These extend from front to back over the shoulder and narrow to a point at either end.

Skirts are still from four to six yards around the bottom. Fan plaits instead of gathers are employed to dispose of the fullness at center of back on all new skirts. These may be plain at foot if desired, or have narrow pleated or gathered ruffles.

Blouse waists are again in high favor and are very becoming to slender forms. These droop over the belt, and may or may not end there. These are elaborately trimmed in every conceivable way, perpendicular, horizontal, and diagonal. Basque waists are trimmed in the back as well as front and Eton and Bolero fronts are still popular. These add much to the dressy effect of an otherwise plain waist. The lower edge of the basque may be straight around at the waist line or slightly pointed back and front. Folds of velvet, silk, or other material form a pleasing finish. Some are made with seamless backs, others with

seams. Lace may finish the neck, standing in a full ruffle above the collar. The latter may be plain or wrinkled, and ribbon bows are frequently seen either at the back or on one side.

In wraps we still have both capes and jackets. The latter are both single and double-breasted and may close with large pearl buttons or with a fly front. Ripple backs have disappeared. Materials are covert cloth, melton, whipcord or broadcloth. Capes are gored or circular with a sweep of about three yards and extend nearly or quite to the waist line.

Hats do not materially differ from the summer styles. Flowers, feathers, ribbon, chiffon, all are employed as garniture and arranged in every conceivable manner.

MARIE.

### QUILT BLOCKS.

The dimensions given will make a block eight inches square. In Fig. 1, Grecian design, calls for six light pieces and four dark ones, or three squares of light, three inches square,

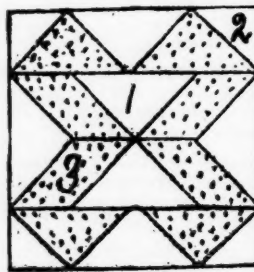


FIG. 1-GRECIAN DESIGN.

halved diagonally, and two squares of dark cut in the same way. Block 2 calls for four light pieces, or two squares cut diagonally; 3 calls for four pieces of dark, three inches by two, shaped as in illustration.

In the "Economy" design (Fig. 2) the dimensions will make a block six inches square; 1 calls for four dark pieces, 3x1 1-2 inches, or two blocks 3 inches

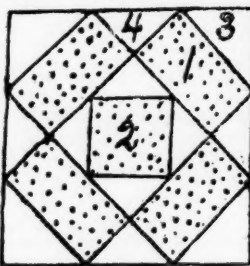


FIG. 2-ECONOMY QUILT.

square, cut in the middle, straight way of the cloth; 2 is a trifle over two inches square; 3 calls for four light blocks made by cutting a block two inches square twice diagonally. There are eight blocks of 4 required, made by cutting diagonally four blocks 1 1-2 inches square. If those sending patterns would give size of block and dimensions of pieces they would be much more helpful.

S. E. W.

### WHO CAN PRESCRIBE A REMEDY?

I have seen so many inquiries answered in the Household, that I am going to make my wants known too, if you please.

I am troubled every summer after warm weather comes with a minute red ant, hardly the sixteenth of an inch long. They do not care for sweets, but go for anything that has grease in it, tallow, lard, butter, fat meats, cream, milk or pie crust, cake and cookies, but they never trouble the sugar box or anything what has no grease in it. I have found them in the oiled paper covering coconut.

They remain till cool weather comes. I have tried poisoning with paris green in lard, and slug shot, hellebore, etc., but the wise little fellows will not touch it. What shall I do with them? They're small, but mighty! and have

prevailed for a dozen years at least.

MRS. ISABEL JENNEY.

(We would suggest the use of insect powder sprinkled lightly where the mites congregate. It is harmless to all but insect life. Borax used the same way has rid our pantry of the larger ants and no doubt would succeed with these also.—Ed.)

### A CHAPTER ON PICKLING.

Onion Pickles.—Peel the onions and let them lie in salted water over night, a teaspoon of salt to four quarts of water. Rinse in clear water three times, let them stand in the last water fifteen to twenty minutes; pack them in jars with spices the same quantity as with the cucumbers. Add chopped celery or celery seed if liked, or the spices may be left out if desired. Then scald good vinegar to fill the jar full, pouring on boiling hot. Cover and keep cool and dry.

Small White Onion Pickles.—Let them lie in salted water over night. For four quarts of onions allow a small cup of salt to enough water to cover them. Rinse and pour over them sufficient good vinegar, scalding hot, but not boiling, to cover and let them stand three days. For four quarts you will need for the dressing one-fourth pound of the best ground mustard, one-half ounce of whole clove, one-half ounce of stick cinnamon, one-fourth ounce of celery seed, one-fourth ounce of turmeric, and one-fourth teaspoonful of cayenne pepper. Drain the onions, put one quart of fresh vinegar into a porcelain kettle, mix the mustard with just enough cold vinegar to make a smooth paste, add the turmeric, pepper and celery seed and pour into the hot vinegar, stirring till it thickens. Have the onions filled into the jars, with the spices divided as evenly as possible, and pour the hot mixture over them, shaking the jars gently that it may reach the bottom. Fill very full and screw on the tops. Keep in a cool, dry, dark closet.

Cabbage Pickle.—Select firm white cabbages, cut and wash in cold water, and chop fine. To two quarts of chopped cabbage allow one bunch of crisp celery and one onion; chop both (the onion should be very fine) and mix with the cabbage. Put a cupful of vinegar in a bowl with half an ounce each of cloves and stick cinnamon and a teaspoonful of pepper corns. Place the bowl, closely covered, in a dish of boiling water, and let it steep for an hour. When the cabbage and other ingredients are chopped and mixed, pack in jars, nearly filling them. Strain the spiced vinegar when cold into a quart of cold vinegar and fill the jars. This will keep well and is ready for use in a few days. When the onion and celery is used the spice may be left out.

Pickling Small Cucumbers.—Pick the cucumbers when two or three inches long, never larger if you can get the small size. Wash in cold water, dry carefully with soft cloths and pack them in glass fruit jars, putting whole cloves, stick cinnamon, pepper corns and allspice with them, allowing a teaspoonful of each except the cinnamon (can use more of that, breaking in small pieces) to each quart jar, sprinkling them in with the cucumbers as evenly as you can. When jar is full, screw on the cover, or paste paper brushed with the white of an egg over the tops. Jars to which the covers have been lost or broken may be used. Wrap each jar in paper, and keep in a cool, dry place. They will be good in a few weeks and are nice and crisp.

Sweet Pickles.—For peaches, pears, crabapples and sweet apples, the proportions are: Three and one-half pounds of sugar, one pint of good vinegar and an ounce of mixed spices (stick cinnamon and cloves are best, with a little allspice and a blade of mace if one likes) to each seven pounds of fruit. Select nice fruit, cut out the blossom ends

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from crabapples. Steam the fruit till tender, but not soft, and put into jars. Boil the vinegar, sugar and spices together for five minutes and pour immediately over the hot fruit. Blackberries make nice pickles, using four pounds of sugar, one pint of vinegar, and one-half ounce each of cloves and cinnamon to ten pounds of berries. Put the vinegar, sugar and spice into a granite kettle, stir until the sugar is dissolved and when it boils add the berries. Boil gently for fifteen minutes; pour into jars. Plums require four pounds of sugar and a pint of vinegar to eight pounds of fruit. The fruit should be steamed, like the pears and peaches.

Quinces make nice pickles. They should be washed and peeled, quartered and cored, saving the cores and peel to make jelly. Boil the quinces very gently in just enough water to cook them for fifteen minutes, drain and put carefully into the simmering syrup of vinegar, sugar and spice (the same proportion as for peaches) for five minutes and put into jars. The water in which the quince was boiled should be poured over the cores and peel, and when the pickles are out of the way you can make jelly. Half a dozen good, juicy apples washed and cut in small pieces added to the quince will make the jelly firm. It takes but little time and trouble and the jelly is very nice.

Sweet Apple Pickle.—Peel, halve and core; steam until just cooked through, but not soft, and put into boiling syrup until scalded through; three or four minutes will be long enough.

Tomato Pickles.—The small yellow tomatoes make very nice pickles, either plain or sweet. For plain pickles the first recipe for onions, omitting the celery, is a good one to follow, except soaking them in salted water, which they do not need. For sweet pickles, follow that for pears and peaches.

Ripe Cucumber Pickle.—Steam for twenty minutes after soaking twelve hours in weak, salted water, then rinse in several waters. Simmer ten minutes in the syrup, and set away in the kettle until next day. Then drain, fill the jars, boil the syrup for five minutes and pour boiling hot over the cucumbers. They can be cut in any shape desired.

M. C. S.

## HOUSEHOLD HINTS.

Try essence of peppermint for neuralgia. Wet a cloth with it and lay upon the painful spot.

When cleaning around door knobs, where the finger marks are worst, use borax on a damp cloth instead of soap, and the injury to the panel will be less.

To clean a white straw hat cut a lemon in half, remove the rind and rub the straw briskly with it. Then wipe with a clean cloth. This removes all stains and makes the hat look like new.

A stiff newspaper folded so as to be about four inches wide and a foot or more in length makes an excellent weapon with which to dispose of flies at this time of year. A little practice makes one quite proficient in its use and rarely will a mark be left upon wall paper or paint.

Meringues for pies or puddings should be thoroughly beaten after adding the sugar, to ensure their being light after browning. The leathery texture is caused by beating the whites of the eggs alone, then adding the sugar and insufficiently beating it afterward.

Flies are the pest of the farm house in summer. In spite of all effort to exterminate them they will get inside. The very best way to get rid of them is to close the rooms, then fill the air with insect powder. Five cents' worth will destroy every fly in the house. They must be carefully swept up and burned while stupefied by the drug, as it does not actually kill them, for after a time they will revive unless otherwise destroyed.

## CONTRIBUTED RECIPES.

Rye and Indian Bread.—(By request of May S.) Two quarts cornmeal, one and one-half cups brown sugar or molasses, one scant teaspoon of salt, and one quart of boiling water. Mix all together. Now take two quarts rye meal or graham flour, one pint sour milk, one teaspoon of soda and mix thoroughly. If necessary, add sweet milk to make as stiff as cake dough. Steam or bake two hours in a moderate oven.

AUNT NANCY.

## AGRICULTURE IN ALASKA.

Much interest attaches to the newest exploring expedition sent out by Uncle Sam. It is to start in a few days, and its object will be to visit Alaska and gather preliminary data with reference to the contemplated establishment of one or more agricultural experiment stations in that Arctic province. Congress has appropriated \$5,000 to pay for the investigation, and under existing law an institution of this sort would be entitled to a subsidy of \$15,000 per annum from the government. Of late the population of the Territory has been increased enormously, upward of 30,000 persons entering it last year, most of them in pursuit of gold. The rush to the mines along the Yukon continues, \$10 a day being the price of ordinary labor in the Klondyke region, where at the present time a spade or shovel is worth \$25 cash. As a rule, however, no man can get work unless he brings a year's provisions with him, because the claimowner cannot afford to give up any of the food, which is all that stands between himself and starvation.

Here is a country, then, which does not offer support to an increasing population. Yet it is exceedingly rich, and in parts very fertile, so that there is no reason why it should not sustain millions of people. In fact, most of the important food plants of the temperate zone grow there very well, and the enterprising farmer may choose whether he will produce vegetables or sow grain. Thanks to the great warm current that flows along the shores of Southern Alaska, corresponding to the Gulf Stream of the Atlantic ocean, the climate of the coast belt and outlying islands is very mild, the temperature in winter rarely dropping more than 15 degrees below the freezing point. Unfortunately, knowledge respecting the agricultural possibilities of the Territory is slight, and it is just this deficiency of information that is to be supplied by the contemplated expedition.

Botanist Allen, of the Department of Agriculture, and Dr. Killen, of the Oregon Agricultural College, with one or two others, will compose the party. They will make a tour through the Sitka region, and also will visit a number of islands of the Aleutian chain, looking for the establishment of an experiment station. They will pay particular attention to the great island of Kodiak, which is of such size, 90 miles long by 60 broad, that alone it might be a granary for the whole of Alaska. Two-thirds of it is treeless, and the fertility of the soil is evidenced by the extraordinary luxuriance of the grasses, with which its hills are covered. This wealth of wild grasses is equal to anything that can be seen on the prairies of Iowa or Minnesota.

The expedition will choose a location for at least one experiment station. When once it is started the work of the establishment will be of a very elaborate and comprehensive description. It will be scientific farming conducted with a view to finding out how the conditions of the region may be utilized to best advantage for the production of every possible field and garden crop. But this is not all, for it is desired to learn what domestic animals may be reared to advantage in Alaska. At the present time there are practically no domestic animals in the territory, though the country is well adapted for sheep, pigs, and goats, and in the Sitka region, as well as on the islands of the Aleutian chain, cattle will keep fat all the year around, without much care, subsisting on the nutritious grasses. Further to the north it would be necessary to give them shelter during two or three months of severest winter weather. Poultry can be raised to advantage in Alaska.

In short, Alaska is a country of great agricultural possibilities. The coastal belt and the lowlands of the Yukon region are covered as soon as spring arrives with a luxuriant growth of grass and flowers. Among the most valuable grasses is the familiar Kentucky blue grass, which grows as far north as Kotzebue Sound, and another is the blue-joint grass, reaching four or five feet in height. These make most excellent forage. Barley has been tried at Port Yukon in small patches, and has matured, though the straw was short. Rye and barley ought to succeed, inasmuch as those grains are grown in very high latitudes in Europe. The island of Kodiak is in the same latitude, with temperature and rainfall about equal, as a part of Scotland which produces much barley and rye. Oats are hardy, and will grow very far north.

The growth of plants in that far northern region is astonishingly rapid. The snow has hardly disappeared before a mass of herbage has sprung up, and spots which a few days before presented nothing but a white sheet are teeming with vegetation, producing leaves, flowers and fruit in quick succession. Indeed, during the short and hot summer the vegetation attains an almost tropical luxuriance. Every plant is rushed as fast as possible to a ripening, in order that its seeds may be produced before the early frosts of autumn nip it. Plants, of course, are accustomed in temperate latitudes to sleep at night, and it is interesting to observe that the vegetation of Arctic Alaska pursues a similar habit for so many hours in each twenty-four, even though the sun is in the heavens for months together without sinking below the horizon, the somnolence being marked by drooping leaves.

An itinerant parson tells that way out "in the backwoods" he came, one day, to a settler's house, and entered to have a talk with its inmates. The old woman of the house became much interested in the preacher's discourse, and requested that he conduct family worship. She also insisted upon hunting up her family Bible, to be used upon the occasion.

She left the room to look up the Bible, but seemed to have hard work finding it. The minutes passed, and she came not. The preacher had time to grow impatient before the old woman reappeared, with a few tattered leaves in her hand.

She handed them over, with an apologetic air. "I'm awful sorry, parson," she explained, "but the fact is, I didn't know I was so near out of Bibles!"—Harper's Magazine.

## BETTER THAN HE EXPECTED.

St. Louis, August 23, 1897.

To the Editor Michigan Farmer: The machine I ordered arrived O. K. and gives entire satisfaction so far. It is a much better machine than expected, both in finish and general appearance, also quality of work done.

Yours respectfully,

T. A. BUSH.

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## Legal Department.

CONDUCTED BY EARL D. BABST,  
56 Moffat Building, Detroit.

Meaning of Alibi.—E. A. C., Shiawassee Co., Mich.—The word "alibi" means literally "elsewhere," and a prisoner or accused person is said to set up an alibi when he alleges that, at the time when the offense with which he is charged was committed, he was "elsewhere," at a place different from that where it was committed, so different as to make it impossible that he could have committed it.

Action on Note of Married Woman.—Old Subscriber, Pittsford, Mich.—A widow with considerable property marries A, who has no property. Mrs. A rents a house of B, and during the absence of her husband borrows money and buys firewood of B, representing that her husband will pay rent, wood and borrowed money on his return. Husband returns but has no money, and Mrs. A gives B her note, but before it becomes due she transfers all her property to her husband. What steps should be taken to collect the note?—A suit may be brought in several ways, either against the husband on the theory that he is responsible for necessities furnished (borrowed money, however, excepted); or against the wife on the note on the theory that the credit was given for the benefit of her separate estate, and attacking the transfer of property as being in fraud of creditors, or against both. Would advise the latter in the absence of further details. Would not advise attachment, but assumptit.

Liability for Maintaining a Fence in a Dangerous Condition.—G. F. W.—A and B built a line fence. B goes into a partnership with his neighbor C in not building a line fence on the south side of the same fields, and B and C agree to pasture together the same fields; C turns into pasture a mare and colt. The mare got into the barbed wire fence between A and B and killed herself. The fence is three feet four inches high, with four strands of barbed wire, which are very slack, and no guards on top. B objected to the fence in its present condition, and A agreed to put it in good condition, but did not. Fence built in May; mare killed in July. Can C collect damages?—On the facts as stated we are of the opinion that A and B are liable to C for the value of the mare. C's mare was rightfully in the fields of B, and was killed through the maintenance of a fence not of legal structure, and so constructed as to be in itself dangerous to animals.

Law in Regard to Dogs.—Subscriber, Nottawa, Mich.—1. Publish the law in regard to dogs.—Any person may kill any dog that he may see chasing, worrying, wounding or killing any sheep, lambs, swine, cattle, or other domestic animal, out of the enclosure or immediate care of the owner or keeper, unless the same be done by the directions or permission of such owner or keeper; or any dog that may suddenly assault him while he is peaceably walking or riding anywhere out of the enclosure of the owner or keeper of such dog. If any dog has killed or assisted in killing, wounding, or worrying any domestic animal, or shall assault or bite, or otherwise injure any person while traveling the highway, or out of the enclosure of the owner or keeper of such dog, such owner or keeper shall be liable to the owner of such property or person injured in double the amount of damages sustained, to be recovered in an action of trespass, or on the case, and it is not necessary, in order to sustain an action, to prove that the owner or keeper knew that such dog was accustomed to do such damage or mischief. The owner or keeper of a dog which has chased, killed, etc., or which has assaulted or bitten any person peaceably walking in the highway, etc., is required within forty-eight hours after having received notice thereof in writing to cause such dog to be killed, and for every neglect so to do forfeits \$3 and an additional \$1.50 for every forty-eight hours delay. The penalty is recovered by suit in name of supervisor and applied to incidental expenses of township. 2. Has a man a right to shoot a dog if it is running around nights away from home in the act of eating a sheep in the field where a number of sheep were killed the night before by dogs?—No. You can collect damages as above upon

proof that the dog in the field killed the sheep the night before. In order to justify the killing of the dog you must actually see him attacking the sheep.

## The Markets.

### WHEAT.

The market ruled weak until Tuesday, when it began to recover, and is moving steadily upwards. Cables were firm on Thursday, and reports from all sources bullish. Values are advancing in Liverpool, Paris, Berlin and reports of bad weather on the continent has strengthened the selling interest very materially. It is generally agreed that the United States holds the key to the situation, and her big crop is relied upon to make up all deficiencies.

The following table exhibits the daily closing sales of spot wheat in this market from August 10 to September 2, inclusive:

	No. 1	No. 2	No. 3
	White.	Red.	Red.
Aug. 10.....	83	83	80 1/2
" 11.....	85 1/2	85 1/2	83 1/2
" 12.....	87 1/2	87 1/2	85
" 13.....	86	86	84
" 14.....	87 1/2	87 1/2	85 1/2
" 15.....	89 1/2	89 1/2	87 1/2
" 16.....	87 1/2	87 1/2	85 1/2
" 17.....	86 1/2	86 1/2	84 1/2
Sept. 1.....	91	91	89
" 2.....	91	91	89
" 3.....	91	91	89
" 4.....	91	91	89
" 5.....	92	92	90
" 6.....	96	96 1/2	94 1/2
" 7.....	96 1/2	96 1/2	94 1/2
" 8.....	99 1/2	1 00 1/2	98 1/2
" 9.....	94 1/2	94 1/2	92 1/2
" 10.....	96 1/2	97 1/2	95 1/2
" 11.....	98	98	96
" 12.....	94	94	92
" 13.....	93 1/2	93 1/2	91 1/2
" 14.....	91 1/2	91 1/2	89 1/2

The following is a record of the closing prices on the various deals in futures each day during the past week:

	Sept.	Dec.
Friday.....	94	93 1/2
Saturday.....	94 1/2	93 1/2
Monday.....	92	91 1/2
Tuesday.....	92	91 1/2
Wednesday.....	96 1/2	96 1/2
Thursday.....	96 1/2	96 1/2

The visible supply of wheat in the United States and Canada on Saturday last was 15,473,000 bu., as compared with 45,574,000 bu. at the same date a year ago. As compared with the previous week, the visible supply shows a decrease of 1,256,000 bu. Thoman, the crop expert, estimates a total wheat crop for the United States of 550,000,000 bushels.

The Liverpool Corn Trade News says: "We have arrived at a deficiency in Europe of about 192,000,000 bu. as compared with the out-turn of 1896. However, it must be carefully borne in mind that the European crop of 1896 was one of the finest reaped in recent years, practically equal to the record crop of 1894, when prices fell to 20s."

The Austrian ministry of agriculture makes the world's wheat shortage to be 176,000,000 bu. Beerbohm, in his review of August, makes the European shortage 240,000,000; American yield increase of 120,000,000 bu., leaving net world's shortage of 120,000,000 bu.

Crop Expert Prime's report says: Reports regarding spring wheat come in conflicting. I think the crop will not be very large, and in addition a large percentage will be poor wheat. A private cable from Russia makes the wheat crop there 60,000,000 bushels under last year. Thoman to-day estimates the winter wheat at 355,000,000 and spring at 195,000,000, a total crop of 550,000,000 bu.

The Grand Forks correspondent of the Northwestern Miller says: "The total wheat yield is a question of great dispute, estimates now ranging from 120,000,000 bu. to 150,000,000 bu."

The shipments of wheat from Argentina during the past thirty-one weeks have been 1,740,000 bu., against 16,436,000 bu for the corresponding period in 1896.

A cable dispatch states that the wheat crop of Russia is 60,000,000 bu. less than last year, and the rye crop 140,000,000 bu.

A dispatch received at Toronto from Manitoba, says that there has been no frost sufficient to damage the wheat in Manitoba this season, and next week will probably see the bulk of the wheat threshed. The crop will be the largest in the history of the Canadian prairie. The yield will run as high as 35 bu. to the acre, while in Ontario it is as high as 40. The total wheat crop of Canada this year will be fully 60,000,000 bu. of prime wheat.

### DAIRY PRODUCTS.

#### BUTTER.

The market is getting stronger as the season advances, and really good table butter, either creamery or dairy, sells quickly at current quotations. Values are higher than a week ago, and quite firm at the advance. Quotations range as follows: Creamery, 17@18c; fancy dairy, 14 1/2@15c; fair to good, 12@14c; low grades, 7@9c. At Chicago the market has declined and is rather slow. There is said to be considerable amounts held in stock there, and this has a weakening influence on the market. Quotations in that market on Thursday were as follows: Creameries, extras, 18c; firsts, 17@17 1/2c; seconds, 13@15c. Dairies, extras, 15c; firsts, 12@13c; seconds, 10@10 1/2c. Packing stock, fresh, 9c. The New York market is not as firm as a week ago, owing to freer receipts and some slackening up in the demand. The highest figures on creamery are sometimes shaded to make sales. Quotations in that market on Thursday were as follows: Creamery, Western, extras, per lb, 18 1/2@19c; do firsts, 17@18c; do thirds to seconds, 12@16c; do State, extras, 18 1/2c; do thirds to firsts, 12@18c; do June make, extras, 17 1/2@18c; do firsts, 16@17c; State dairy, half-skin tubs, extras, 16@17c; do Welsh, tubs, fancy, 16@16 1/2c; dairy tubs, thirds to firsts, 13@14c; State dairy, fine, etc., 10@13 1/2c; imitation creamery, fine, 13c; do seconds to firsts, 10@12c; factory, June, extras, 12c; do firsts, 11@11 1/2c; do fresh,

firsts, 11c; do thirds to seconds, 8@10 1/2c. At the Utica Board on Monday last 145 packages of creamery were sold at 19@20c per lb. Those bringing 20c were one-pound packages.

At Little Falls on Monday 23 packages of dairy sold at 15@16c, as compared with 14@15c the previous week.

#### CHEESE.

There has been a general advance in domestic markets the past week, ranging from 1/2c to 3/4c, and the outlook seems promising for the advance to be fully maintained. In this market quotations on prime full cream State are 9@9 1/2c per lb, with a firm feeling in the trade. At Chicago the advance is less than here or in New York, but the feeling is strong, with an improvement in the export demand. Quotations in that market Thursday were as follows: Young Americas, 8 1/2@9 1/2c; twins, 8 1/2@9c; cheddars, 7 1/2@8 1/2c; Swiss, 8@9c; limburger, 6 1/2@7 1/2c; brick, 7 1/2@8c. The New York market is firm and higher as the result of lighter receipts, a fair export demand, and an advance at Liverpool. Small sizes of full cream colored sold up to 10c, but the high price checked the demand, although it is still the ruling quotation. Values are higher at all interior markets, so it is likely the advance will be sustained. Quotations in that market on Thursday were as follows: State, full cream, large, fancy, colored or white, 5 1/2c; do choice, 5 1/2c; do fair to good, 5 1/2@5 3/4c; do small, colored, fancy, 10c; do white, 9 1/2@9 3/4c; do choice, 9 1/2@9 3/4c; do fair to good, 7 1/2@8 1/2c; light skims, choice, 6 1/2@7c; part skims, choice, 6 1/2@6 3/4c; do good to prime, 5 1/2@5 3/4c; do common to fair, 4@5c; full skims, 3@3 1/2c.

At the Utica Board on Monday 8,467 boxes were sold at a range of 9@9 1/2c; the previous week 8,801 boxes were sold at a range of 8 1/2@9 1/2c; and on the same day a year ago 5,230 boxes were sold at an average price of 7 1/2@7 3/4c.

At Little Falls on Monday 5,460 boxes were sold at a range of 8 1/2@9 1/2c. The previous week 5,818 boxes were sold at a range of 8 1/2@8 3/4c.

At Watertown sales were made at 9@9 1/2c; at Gouverneur buyers offered 9 1/2c, but only 500 boxes were sold, balance held for higher prices.

At Liverpool on Thursday the finest white and colored American cheese sold at 45s per cwt; the previous week quotations were 44s, showing an advance of 1s per cwt since our last report. Market quoted firm at the advance.

### DETROIT PRODUCE MARKET.

Detroit, September 2, 1897.

FLOUR—Quotations on jobbers lots in barrels are as follows:

Straights.....	\$5.00
Clears.....	4.75
Patent Michigan.....	5.50
Low grade.....	4.00
Rye.....	3.50

CORN—The visible supply of this grain on Saturday last in the United States and Canada was 27,873,000 bu., as compared with 21,566,000 bu. the previous week, and 12,364,000 bu. for the corresponding week last year. Quotations are as follows: No 2, 32 1/2c; No 3, 32c; No 2 yellow, 34c; No 3 yellow, 34c.

OATS—The visible supply of this grain on Saturday last in the United States and Canada was 9,250,000 bu., as compared with 8,005,000 bu. the previous week, and 6,735,000 bu. for the corresponding week last year. Quotations are as follows: No 2 white, 23 1/2c; No 2 white, 23 1/2c; light mixed 23c.

RYE—The visible supply of this grain on Saturday last in the United States and Canada was 1,816,000 bu., as compared with 1,675,000 bu. the previous week, and 1,699,000 bu. for the corresponding week in 1896. Sales were at 51 1/2@52c, closing at 51 1/2c for No 2.

CLOVER SEED—Prime spot quoted at \$4.07 1/2 per bu; September and October delivery, \$4.15.

FEED—Jobbing quotations on carload lots are as follows: Bran and coarse middlings, \$10; fine middlings, \$12; cracked corn, \$13; coarse cornmeal, \$12; corn and oat chop, \$11 per ton.

BUTTER—Creamery, 17@18c; fancy dairy, 14 1/2@15c; good dairy, 11@13c; low grades, 6@7c per lb.

CHEESE—Michigan full cream, 9@9 1/2c per lb.

POULTRY—Live fowls, 6@7c; spring chickens, 8c; ducks, 7@8c; turkeys, 8c per lb.

EGGS—Quoted at 14@14 1/2c per dozen.

PEACHES—Michigan freestone, 25@30c per 1-5 bu basket; Illinois, 60c per 4-basket crate.

PISTONS—Lombards, \$1@1.25; Damsons, \$1; Bradshaws and Golden Egg, \$1.50 per bu.

PEARS—Quoted at 50@75c per bu for common, and \$2.25 for Bartlett's.

HUCKLEBERRIES—Selling at \$2@2.25 per bu.

MELONS—Watermelons, \$10 per 100; \$1.75@2 per bbl.

BEANS—City hand-picked, \$1.05@1.10 per bu in car lots.

POTATOES—Michigan selling at 50@60c per bu from jobbers, and 35@50c from first hands.

ONIONS—Quoted at 60@75c per bu from first hands.

DRIED FRUITS—Evaporated apples, 4 1/2@5c; evaporated peaches, 7 1/2c; dried apples, 3c per lb.

HONEY—Quoted at 10@12c in sections for white, and 8@9c for dark comb; extracted, 5@6c per lb.

PROVISIONS—Quoted at follows: Mess pork, \$9.50 per bbl; short cut mess, \$10.50; short clear, \$10@10.50; compound lard, 4 1/2c; family lard, 5 1/2c; kettle lard, 5 1/2c; smoked hams, 9@10c; bacon, 8 1/2c; shoulders, 6 1/2c; picnic hams, 7 1/2c; extra mess beef, \$7.50; plate beef, \$8.25.

COFFEE—City prices are as follows: Rio, roasting, 15c; fair, 18c; good, 18@19c; prime, 20c; choice, 22@23c; fancy, 24c; Maracabo, roasted, 25c; Santos, roasted, 24c; Mocha, roasted, 29c; Java, 29c.

OILS—Quoted as follows: Raw linseed, 42c; boiled linseed, 44c per gal, less 1c for cash in ten days; extra lard oil, 40c; No 1 lard oil, 31c; water white kerosene, 8 1/2c; fancy grade, 11 1/2c; deodorized stove gasoline, 7 1/2c; turpentine, 35 1/2c per gal in bbl lots, in less quantities, 40@42c per gal.

HARDWARE—Latest quotations are as follows: Wire nails, \$1.60; steel cut nails, \$1.55 per cwt; new card; axes, single bit, bronze, \$5; double bit, bronze, \$5.50; single

bit, solid steel, \$6; double bit, solid steel, \$9.50 per doz; bar iron, \$1.40; carriage bolts, 75 per cent off list; tire bolts, 70 and 10 per cent off list; painted barbed wire, \$1.65; galvanized do, \$1.95 per cwt; single and double strength glass, 60 and 20 per cent off list; sheet iron, No 24, \$2.50 per cwt; galvanized, 75 and 10 per cent off list; No 1 annealed wire, \$1.45 rates.

HAY—Baled quoted as follows: Best new timothy in car lots, \$8.50; rye straw, \$5.50; wheat and oat straw, \$4.50 per ton.

HIDES—No 1 green, 6@6 1/2c; No 1 cured, 8 1/2@9c; No 2 green, 5 1/2c; No 2 cured, 8@8 1/2c; No 1 cured calf, 10 1/2@11c; No 2 cured calf, 9@9 1/2c; No 1 green calf, 9c; No 2 green calf, 7 1/2c per lb; sheepskins, as to wool, 70@75c.

WOOL—Unwashed fine, 13 1/2@14 1/2c; unwashed medium, 17@18c; washed fine, 17@18c; washed medium, 21@22c per lb.

### DETROIT LIVE STOCK MARKET.

#### Michigan Central Stock Yards.

Detroit, Mich., Sept. 2, 1897.

#### CATTLE.

Receipts Thursday, 535; through and direct to butchers, 224; on sale, 611, as compared with 895 one week ago. The quality averaged about the same as last Thursday. Trade once active; good handy butchers steady to strong; stockers closed weak and a shade lower; \$4.35 was highest price reported to-day for steers, av 1,290 lbs, but the bulk changed hands at prices ranging from \$3.00 to \$4.00; common thin butchers and old cows, \$2.25 to \$2.75; bulls, light to good butchers, \$2.65 to \$3.25; stockers and feeders, \$3.25 to \$4.00. Veal calves—Receipts, 89; one week ago, 82; unchanged; sales at \$5.00 to \$6.00 per 100 lbs. Milch cows and springers in good demand at prices ranging from \$30.00 to \$50.00 each, mostly \$30.00 to \$40.00.

Adams sold Black 5 mixed butchers av 584 at \$3.50.

Lingeman sold same a fat cow weighing 1,390 at \$3.50.

Glenn sold Caplis & Co 2 fat cows av 1,000 at \$3.00, a steer weighing 1,290 at \$4.35, 1 do weighing 760 at \$4.00 and a bull weighing 830 at \$2.75.

Howe sold Kammen 4 cows av 1,030 at \$3.00.

Sharp sold Caplis & Co 3 cows av 1,103 at \$3.25 and 1 weighing 810 at \$2.50.

Stead sold Mason 2 mixed butchers av 840 at \$3.25.

Lomason sold Sullivan 5 steers and heifers av 790 at \$4.00.

Pline sold same 2 stockers av 640 at \$3.60, 3 heifers av 653 at \$3.25 and a canner weighing 1,020 at \$2.25.

VanBuskirk sold Magee 3 cows av 790 at \$3.20, 6 steers to Sullivan av 796 at \$3.75, 4 cows to Black av 1,084 at \$3.40 and 6 mixed butchers to Kammen av 645 at \$3.50.

O'Neils sold Caplis & Co 5 mixed butchers av 833 at \$3.30.

Nott sold Kline 10 feeders av 760 at \$4.00. Reason sold Mich Beef Co 8 mixed butchers av 921 at \$3.75.

Allen sold Schleicher 8 mixed butchers av 556 at \$3.25 and a cow weighing 1,150 at \$3.00.

Kelsey sold Mich Beef Co a fat cow weighing 1,190 at \$3.50 and 3 feeders av 873 at \$3.30.

McLaren sold Caplis & Co 5 fat cows av 1,024 at \$3.25.

Rook sold Mason 3 bulls av 823 at \$2.75 and a cow weighing 788 at \$3.25.

Lowenstine sold June 10 mixed butchers av 846 at \$3.25.

Weeks sold Mich Beef Co 10 mixed butchers av 796 at \$3.70.

Gordon sold Regan 18 mixed butchers av 625 at \$3.40.

Allen sold Lilley 10 stockers av 597 at \$3.70.

Houghton sold Carmichael 7 stockers av 638 at \$3.80.

York sold Kammen 18 mixed butchers av 627 at \$3.50 and 3 do av 560 at \$3.00, also a fat heifer to Russell weighing 1,050 at \$4.00.

Gordon sold Mich Beef Co 11 steers av 652 at \$3.82 1/2.

Allen sold Caplis & Co a bull weighing 730 at \$2.85 and 3 good butcher steers av 850 at \$4.00.

Haley sold Black 12 steers and heifers av 790 at \$3.30 and 4 mixed butchers av 791 at \$3.20; to Sullivan a bull weighing 650 at \$2.65.

York sold Magee 7 bulls av 630 at \$2.75, 7 fair butcher cows to Black av 947 at \$2.75 and a bull to Sullivan weighing 1,640 at \$3.25.

Spicer & Merritt sold Schleicher a heifer weighing 730 at \$3.50, 2 bulls av 560 at \$2.65 and 2 heifers av 465 at \$3.25, 4 feeders to Vought av 942 at \$3.70, 5 stockers to Horner av 586 at \$3.50 and 12 steers and heifers av 623 at \$3.50, to Newton 10 steers av 621 at \$3.75, a bull to Prucha weighing 520 at \$2.50 and 2 do av 510 at \$3.00; to Mich Beef Co a fat cow weighing 1,100 at \$3.80, 3 heifers av 813 at \$4.00, 4 cows av 1,205 at \$3.25, 3 do av 883 at \$2.75 and 2 av 900 at \$3.00, 10 stockers to Stokes av 617 at \$3.70, 2 cows to Magee av 920 at \$2.70; also 3 bulls to Sullivan av 770 at \$2.75.

#### SHEEP AND LAMBS.

Receipts Thursday, 2,145; through, 428; on sale, 1,717; one week ago, 687. Market opened active at about last week's prices, but at the close lambs were slow and weak. Range of prices: Good to choice lambs, \$5.00 to \$5.25; fair to good, \$4.50 to \$4.90; good mixed lots, \$4.25 to \$4.75; fair to good mixed butchers, \$3.30 to \$4.20; common, \$2.75 to \$3.25.

Coats sold Fitzpatrick 68 lambs av 63 at \$5.00 and 5 mixed av 63 at \$4.00.

Clark & B sold Monaghan 60 mixed av 70 at \$4.50.

Reason sold Robinson 20 mixed av 70 at \$4.40.

Sharp sold Holmes 19 mixed av 72 at \$4.40.

McLaren sold Downs 48 yearlings av 107 at \$4.50.

Glenn sold Mich Beef Co 14 common butchers av 71 at \$2.75.

Houghton sold Sullivan Beef Co 31 lambs av 63 at \$4.50 and 48 mixed butchers av 79 at \$4.00.

Roe & Holmes sold Young 28 lambs av 76 at \$5.15.

Haley sold Hammond, S & Co 65, most lambs, av 80 at \$4.75.

York sold Downs 180 mixed av 70 at \$4.50.

Johnston sold Fitzpatrick 75 mixed av 76 at \$4.00.

Spicer & M sold Sullivan Beef Co 59 mixed av 71 at \$4.60.



Johnston sold Downs 197 lambs av 74 at \$4.75.  
Roe & Holmes sold same 70 lambs av 61 at \$5.10 and 69 do to Monaghan av 67 at \$4.65.

## HOGS.

Receipts Thursday, 3,676; as compared with 2,543 one week ago. Market opened active and 10 to 15c higher than last Friday's closing; all sold early, closing firm. Range of prices, \$4.30 to \$4.40; bulk at \$4.35; stags, 1/2 off; roughs, \$3.50 to \$3.75; pigs, \$4.30 to \$4.50.

Reason & D sold Hammond, S & Co 45 av 209 and 29 av 219 at \$4.35.

Horner sold same 64 av 182 at \$4.35.

Spicer & Merritt sold same 46 av 194, 20 av 262, 15 av 201 and 50 av 193 at \$4.35; also 43 to Sullivan av 143 at \$4.37 1/2.

Sheldon sold Hammond, S & Co 53 av 284 at \$4.30.

Roulader sold same 153 av 161, 152 av 180 and 159 av 163, all at \$4.35.

Murphy sold same 34 av 255 at \$4.35.

Patrick & Pline sold same 43 av 224 at \$4.35.

G H Mayer sold same 130 av 183 and 115 av 222 at \$4.40.

Oversmith sold same 88 av 195 at \$4.32 1/2.

Glenn sold same 86 av 194 at \$4.35.

Hogan sold same 49 av 242 at \$4.30.

Messmore sold R S Webb 62 av 216 at \$4.30.

Clark & B sold same 56 av 192 at \$4.35.

Sharp sold same 20 av 183 at \$4.30.

H I Howe sold same 92 av 221 at \$4.37 1/2.

Stoll sold same 66 av 215 at \$4.35.

Sheldon sold Sullivan 121 av 167 at \$4.35.

Reason sold same 19 av 122 at \$4.37 1/2.

Johnston sold same 25 av 173 at \$4.35.

Taggart sold same 75 av 186 at \$4.32 1/2.

Weeks sold same 30 av 144 at \$4.37 1/2.

Coats sold same 30 av 192 at \$4.40.

Lomason sold same 46 av 194 at \$4.40.

Nichols sold same 45 av 196 at \$4.35.

Nixon sold Parker, Webb & Co 101 av 206 at \$4.35.

Bunnell sold same 88 av 191 at \$4.35.

Osmus sold same 35 av 235 at \$4.35.

Bergen sold Parker, W & Co 67 av 216 at \$4.35.

Lewis sold same 135 av 197 at \$4.35.

Parks sold same 59 av 212 at \$4.35.

Turnburn sold same 45 av 184 at \$4.35.

Roe & Holmes sold same 53 av 192 and 43 av 212 at \$4.35.

Friday, September 3, 1897.

## CATTLE.

Receipts Friday, 312; through, 85; on sale, 227; one week ago, 266. Market fairly active. Light stockers steady to strong, others weak to shade lower. \$4.45 was the highest price paid to-day for 22 good steers av 1,060 lbs, balance as noted. Veal calves—Receipts, 51; one week ago, 32; active and unchanged. Milch Cows and Springers—Unchanged.

Joe Lingeman sold McLaren 12 stockers av 580 at \$3.50.

Roe & Holmes sold Sullivan 13 stockers av 630 at \$3.75, 3 do av 656 at \$3.75, 31 do av 635 at \$3.60, 3 bulls av 766 at \$2.75, 5 do av 668 at \$2.75, 4 do av 590 at \$2.75, 4 do av 652 at \$2.75, 9 stockers av 507 at \$3.50 and 8 mixed av 731 at \$3.60; to Mich Beef Co a fat cow weighing 1,260 at \$3.50, 4 fair butchers av 1,315 at \$2.75 and a canner av 1,100 at \$2; to Robinson 4 mixed butchers av 932 at \$2.75, 8 do av 715 at \$3.75, 3 do av 833 at \$3, 9 steers and heifers av 742 at \$3.85, 9 mixed butchers av 733 at \$3.40, a bull weighing 990 at \$2.75, 1 do weighing 960 at \$2.50 and a steer weighing 710 at \$3.25; to Cook & Fry 20 mixed butchers av 726 at \$3.35 and 5 do av 593 at \$3.50; to Amerline 4 mixed av 463 at \$3.50, 5 do to Stuckey av 415 at \$3.25; to Schleicher 5 mixed butchers av 650 at \$3.40 and a cow weighing 1,020 at \$3.25, also 1 ox to Mich Beef Co weighing 1,510 at \$3.15.

Roberts & Spencer sold Black 5 fair butchers cows av 1,020 at \$2.75 and 7 mixed butchers av 1,100 at \$3.40, also 14 steers and heifers to Sullivan av 857 at \$4.

Roe & Holmes sold Harger 4 cows av 1,067 at \$3.00, 4 mixed butchers av 742 at \$3.50; to Mich Beef Co 4 fat cows av 1,170 at \$3.25 and a canner weighing 1,050 at \$2.00.

Judson sold Sullivan 2 steers av 715 at \$3.80 and a bull weighing 550 at \$2.60, 2 fat cows to Fitzpatrick av 1,140 at \$3.20 and a fat heifer weighing 730 at \$3.75.

Messer sold Fitzpatrick 6 (cows and bulls) av 875 at \$3.25 and 11 stockers to Lovewell av 565 at \$3.65.

Carman sold Miller 8 stockers av 546 at \$3.50.

Ramsey sold Sullivan 22 steers av 1,050 at \$4.45.

Talmage sold Black 2 fat cows av 1,070 at \$3.25.

Stevens & Hennessy sold Mich Beef Co 8 steers av 843 at \$4.00, a fat cow weighing 1,090 at \$3.50 and 1 weighing 990 at \$3.00.

Fox & Bishop sold Fitzpatrick 7 mixed butchers av 988 at \$2.85 and 3 fat heifers av 880 at \$4.00.

Carman sold Mich Beef Co 3 heifers av 816 at \$3.50, 2 feeders av 750 at \$3.75, 3 cows av 703 at \$3.00, 2 bulls av 710 at \$2.50 and 4 mixed av 478 at \$2.75.

Roe & Holmes sold Robinson a good sausage bull av 1,770 at \$3.10, 2 fat bulls to Mohr av 700 at \$3.10, 10 mixed butchers to Mich Beef Co av 709 at \$3.60 and a steer weighing 1,000 at \$4.00.

Astley sold Sullivan 2 (steer and heifer) av 1,000 at \$4.00 and 2 mixed av 850 at \$3.15.

McRoberts sold Mich Beef Co 11 steers and heifers av 680 at \$3.75.

Luckie sold Sullivan 2 bulls av 1,185 at \$2.70.

## SHEEP AND LAMBS.

Receipts Friday, 426; one week ago, 409. Market fairly active and unchanged from above quotations.

Luckie sold McIntyre 22 lambs av 68 at \$4.75.

Roe & Holmes sold Robinson 25 lambs av 67 at \$5.10 and 11 mixed butchers av 84 at \$3.60; also 33 lambs to Mich Beef Co av 70 at \$4.85.

Messer sold Mich Beef Co 29 lambs av 79 at \$5.00, 57 mixed butchers av 96 at \$3.65, 25 do av 131 at \$4.75 and 10 av 59 at \$4.00.

Bandfield sold Hammond, S & Co 73 lambs av 70 at \$5.00.

Oversmith sold Mich Beef Co 66 mixed av 83 at \$4.00.

Pinkney sold same 17 mixed av 84 at \$3.75.

Moore sold Fitzpatrick 30 mixed av 61 at \$3.50.

Carman sold McIntyre 14 lambs av 75 at \$5.15.

McRoberts sold Mich Beef Co 46 lambs av 68 at \$5.00 and 25 mixed av 102 at \$3.50.

Underwood sold Hiler 20 lambs av 53 at \$4.40.

## HOGS.

Receipts Friday, 2,137, as compared with 1,845 one week ago. Market opened active and strong 2 1/2c higher; later lost the advance, closing steady at above quotations.

Fox & Bishop sold Kenner 20 pigs av 75 at \$4.50.

Armstrong sold Sullivan 49 av 193 at \$4.40.

Haley sold same 20 av 174 at \$4.37 1/2.

Broughton sold same 12 av 152 at \$4.35.

Hack sold same 136 av 178 at \$4.42 1/2 and 56 av 195 at \$4.42 1/2.

Erwin sold same 86 av 190 at \$4.32 1/2.

Underwood sold same 49 av 185 at \$4.42 1/2.

Roberts & S sold Hammond, S & Co 41 av 233 at \$4.35.

Fox & Bishop sold same 101 av 200 at \$4.37 1/2.

Hertler sold same 65 av 215 at \$4.37 1/2.

Carman sold same 22 av 190 at \$4.35.

Cassey sold same 27 av 205 at \$4.30.

McCloughy sold same 46 av 204 at \$4.37 1/2.

Spicer & M sold same 35 av 185 at \$4.37 1/2.

Roe & Holmes sold same 21 av 225, 37 av 207, 65 av 200, 38 av 210 and 64 av 181, all at \$4.35.

Bandfield sold same 148 av 200 at \$4.35.

Clark sold same 19 av 232 at \$4.35.

Leach sold same 60 av 204 at \$4.35.

Hack sold same 83 av 236 at \$4.40.

Stabler sold same 64 av 213 at \$4.35.

VanBuskirk sold Parker, W & Co 14 av 149 at \$4.35.

McLaren sold same 97 av 191 at \$4.35.

Rook sold same 22 av 167 at \$4.35.

Talmage sold same 84 av 195 at \$4.37 1/2.

Discher sold same 52 av 216 at \$4.40.

Judson sold same 40 av 191 at \$4.35.

Roe & Holmes sold same 81 av 176 and 93 av 169 at \$4.35, also 27 av 164 at \$4.37 1/2.

Astley sold same 62 av 215 at \$4.37 1/2.

Parsons & H sold same 72 av 204 at \$4.37 1/2.

Luckie sold same 45 av 166 at \$4.37 1/2.

Liedel sold same 43 av 211 at \$4.35.

Cassey sold Sullivan 22 av 141 at \$4.35.

Roe & Holmes sold Kopps 16 pigs av 90 at \$4.60.

## OUR BUFFALO LETTER.

East Buffalo, September 2, 1897.

Cattle.—Receipts of cattle on Monday last week were 5,962, as compared with 6,066 the same day the previous week, and shipments were 4,334 as compared with 5,104 for the same day the previous week. The market opened Monday with liberal receipts and steady strong values for all grades of fat cattle especially good handy steers ranging from 1,100 to 1,300 lbs, and common to fair butchers' stock, cows, etc., about even with last week's prices. Heavy export grades were slow and unchanged, with no demand; stockers and feeders were in liberal supply, and the former were 10@15c lower, while feeders were about steady for prime lots, but lower on common thin stuff. Veal calves and milch cows were steady to firm, with extra showing some advance. Since Monday the market has ruled steady except on stockers and feeders, the poorer grades of which show a further decline. Veal calves have advanced and are very firm, as are milch cows. Quotations closed on Wednesday at the following range: Export and Shipping Steers—Prime to extra choice finished steers, 1,250 to 1,400 lbs, \$5.15 @5.35; prime to choice steers, 1,200 to 1,400 lbs, \$5.05 @5.10; good to choice fat steers, 1,200 to 1,000 lbs, \$3.75 @4.10; choice smooth steers, 1,100 to 1,200 lbs, \$4.60 @4.75; green coarse and rough fat steers, 1,000 to 1,300 lbs, \$3.50 @4.10. Butchers' Native Cattle—Fat smooth dry fed steers, 1,050 to 1,150 lbs, \$4.50 @4.75; fat smooth dry fed light steers, 900 to 1,000 lbs, \$4.20 @4.40; green steers thin to half fattened, 1,000 to 1,400 lbs, \$3.65 @4.15; fair to good steers, 900 to 1,000 lbs, \$3.50 @4.10; choice smooth fat heifers, \$4.45 @4.50; fair to good fat heifers, \$3.35 @3.75; light thin fat heifers, \$2.90 @3.30; good smooth well fattened butcher cows, \$3.60 @4; fair to good butcher cows, \$3.30 @3.50; common old cows, \$2.50 @2.85. Native Stockers, Feeders, Bulls and Oxen—Feeding steers, good style, weight and quality, \$3.65 @4.60; feeding steers, common to only fair, \$3.25 @3.50; good quality yearling stock steers, \$3.30 @4.15; stock heifers, common to choice, \$3.30 @3.50; export weight bulls, fat and smooth, \$3.65 @4; good fat smooth butcher's bulls, \$3.40 @3.65; fair to good sausage bulls, \$2.50 @3.25; thin and common bulls, \$2.65 @2.75; stock bulls, \$2.50 @3; fat smooth young oxen, to good lots fat for export, \$4.40 @4.65; fair to fairly good partly fattened young oxen, \$3.75 @4.25; old common and poor oxen, \$2.25 @2.50. Milkers and Springers—Milkers, strictly fancy, \$4.50 @5; milkers, good to choice, \$3.60 @4; milkers, fair to good, \$3.20 @3.4; milkers, poor to fair, \$1.85 @2.5; springers, strictly fancy, \$4.40 @5; springers, fair to good quality, \$3.20 @4.5. Veal Calves—Veals, prime to extra, \$6.50 @6.75; veals, good to choice, \$6.25 @6.5; veal calves, common to fair, \$5.65 @5.75; heavy fed and buttermilk calves as to quality, \$2.75 @4.25.

Thursday the market was steady and unchanged.

Sheep and Lambs.—Receipts, Monday were 9,000 as compared with 11,800 the previous Monday; shipments were 4,200 as compared with 7,400 same day the previous week. The market on Monday was steady to higher for good sheep and choice lambs, while other grades were about steady. The range of values was about the same as at the close of last week, while the quality of the offerings was about a fair average. Some fancy lambs sold higher than last week, but the ordinary run of fair to good showed little change. Since Monday receipts have been light, and prime handy weight sheep are scarce and higher, heavy sheep firm, and good lambs strong to higher. Quotations at the close on Wednesday were as follows: Native Yearling Lambs—Good to choice, \$4.50 @4.60; fair to good, 65 to 70 lbs, \$4.00 @4.40; common to good culs, \$3.50 @3.85; export yearlings, 75 to 110 lbs, \$4.40 @4.60. Spring Lambs—Choice to fancy, 75 to 100 lbs, \$5.50 @5.65; fair to good, \$5.25 @5.50; culs and common, \$3.75 @4.75. Native Sheep—Prime to fancy wethers, \$4.35 @4.40; good to choice handy sheep, \$4.15 @4.25; common to fair, \$3.65 @4; culs and common, \$2.50 @3.50; good to extra heavy export clipped mixed sheep to prime wethers quotable, \$3.65 @4.25.

Thursday the market was strong and active on both sheep and lambs at unchanged prices.

Hogs.—Receipts of hogs on Monday last were 20,520 as compared with 18,860 for the same day the previous week; and shipments were 16,730 as compared with 10,160 for the same day the previous week. The market on Monday opened with a fair supply of hogs, but the quality was the worst of the season, there being a good many greasy hogs, and others coarse, thin and rough. Michigan sent a great many poor grassers which should never have left the state in their condition. Such hogs caused a weak and declining market, and prices were 15@20c lower on most grades than on Saturday. A few choice mediums and mixed sold at \$4.62 1/2, but 4.60 was the top of the market at the close. Since Monday the market has ruled stronger, with an advance of 5c on some grades. Receipts have been light, and in some instances Yorkers have sold above quotations. At the close on Wednesday quotations were as follows: Good to choice light medium grades 165 to 180 lbs, \$4.60 @4.65; good to choice pigs and light Yorkers 125 to 150 lbs, \$4.65; mixed packing grades 180 to 200 lbs, \$4.60; fair to best medium weight 210 to 260 lbs, \$4.50 @4.55; good to prime heavy hogs of 270 to 300 lbs, \$4.50; fair to good dairy fed grades and ends, \$4.35 @4.45; rough common to good, \$3.75 @4.00; stags common to good, \$3.00 @3.25; pigs light 105 to 120 lbs good to prime corn fed lots, \$4.60 @4.65; pigs thin to fair light weights 75 to 100 lbs, \$4.50 @4.60; pigs, skips and common light and undesirable lots, \$3.50 @4.40.

Thursday the market opened steady, became firmer, and closed firm at \$4.70 for Yorkers, \$4.55 @4.60 for mediums and heavy, and \$3.75 @4.00 for roughs.

## CHICAGO.

Union Stock Yards, Sept. 2, 1897.

Cattle.—Receipts for last week were 59,679 head, as compared with 57,781 the previous week, and 56,002 for the corresponding week in 1896. Up to and including Wednesday of this week receipts have been 46,990 head, as compared with 42,224 for the same days last week. The week opened with increased receipts, but the increase was composed of Texans and northern rangers, prime native cattle being in short supply. The consequence was a drop in values on range cattle and Texans, while good native stock held steady, and sold up close to last week's best figures. Prime native steers sold at \$5.20 @5.45; good to choice, \$4.80 @5.15; ordinary to fair, \$4.00 @4.75; heifers, \$3.20 @4.50; cows, \$2.90 @3.90; stockers, \$3.10 @4.20; bulls, \$2.25 @4.00; veal calves, \$3.75 @6.00. Since Monday receipts have increased, but principally in rangers and grassers. Natives, however, are in light supply, and prime steers have ruled firm. On Wednesday, one lot reached \$6.00, the highest price since Christmas week. Quotations on Wednesday ranged as follows: Prime native steers, \$5.20 @5.55; good to choice, \$4.80 @5.20; ordinary to fair, \$4.00 @4.70; heifers, \$3.75 @4.25; cows, \$2.90 @4.25; bulls, \$2.20 @3.35. Receipts of cattle on Thursday estimated at 9,500; market steady to strong at Wednesday's prices.

Sheep and Lambs.—Receipts last week were 19,914, as compared with 19,382 for the previous week, and 17,480 for the corresponding week in 1896. Up to and including Wednesday of this week receipts have been 47,130 as compared with 58,064 for the same days last week. On Monday business opened fair, and prices much the same as last week on nice, handy weights of sheep and lambs, but there was a big spread between the heavy weights and the nice, handy style, as, for instance, big heavy western sheep averaging 120 sold at \$3.30, while light muttons and feeders sold at \$3.50 @3.75. Prime western lambs sold at \$4.60 @4.75, one big lot, some yearlings, sold at \$5. Fair to good native lambs, assorted, \$4.25 @4.65. Prime native spring lambs, closely assorted, \$5.10 @5.35; native cull lambs, \$3.50 @3.75. The decrease of 11,000 in the receipts has helped the market. On Wednesday business was fairly active, with little or no change in values. Prices ranged as follows: Prime mutton sheep, \$3.50 @3.85; prime feeders, \$3.50 @3.60; common to good native lambs, \$4.50 @4.90; good to prime western lambs, \$4.65 @5.05; good native assorted spring lambs, \$5.05 @5.25; prime spring lambs, closely assorted, \$5.35 @5.40; gilt-edge, \$5.50 @5.65.

On Thursday receipts were estimated at 13,000; market ruled strong and 10c higher.

Hogs.—The receipts or hogs last week were 148,504, as compared with 142,445 the previous week, and 148,926 for the corresponding week in 1896. Up to and including Wednesday of this week, receipts have been 92,137, as compared with 81,262 for same days last week. On Monday the market was unsettled at the opening at

a decline of 5@10c. Towards the close the market became steadier and slightly better. The closing range of prices was as follows: Rough and common, \$3.80 @3.95; heavy packers and good mixed, \$4.40 @4.55; prime mediums and butcher weights, \$4.30 @4.40; prime light, \$4.40 @4.45. The continued increase in the receipts, with an unsettled tone in the provision market, have caused a further decline since Monday. The early sales on Wednesday were at Tuesday's figures, but later ones showed a drop of 5@10c, with a weak market at the close. Quotations at the close were as follows: Rough and common packers, \$3.90 @4.05; prime heavy packers and good mixed, \$4.10 @4.15; prime mediums and butcher weights, \$4.20 @4.45; prime light, \$4.50 @4.55, a few at \$4.45. On Thursday receipts were estimated at 28,000. Market active and 5@10c higher than Wednesday. Light sold at \$4.30 @4.65; mixed, \$4.05 @4.50; heavy, \$3.90 @4.40; rough, \$3.90 @4.05.

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## Horticultural.

For The Michigan Farmer.  
PEAR BLIGHT.

Seeing a letter in your paper from M. P. Halstead, Gratiot Co., to Prof. L. R. Taft, of the Agricultural College, and the latter's reply to his inquiries, prompts me to send you a remedy for pear blight. This remedy is calomel, a mercurial preparation well known, much used, and much abused. It is applied by cutting across the trunk of the tree, raising the edges of the bark, inserting about ten (10) grains of the calomel, and then binding up the wound. The sap takes up the calomel and carries it into the general circulation of the tree. It must be applied while the sap is circulating. It makes no difference on which side of the tree or at what stage of the moon you insert the calomel. I have tried it with success even on apple and other trees that blight. You will find it as I say. Do not apply it in June. Hope Mr. Halstead will try it and be convinced. If the tree in after years begins to blight give it another dose.

JNO. W. HENRIE.

Clay Co., Mo.  
While this remedy has been recommended by several writers in other states, we doubt if it has ever been tried in Michigan. We confess to a disbelief about its efficacy, but it may prove so and hence would like to see it tested, as the remedy is cheap and easily applied.

For The Michigan Farmer.  
CRIMSON CLOVER AS A FERTILIZER.

It is with pleasure I report to you the success attained by Oceana county farmers in the growing of crimson clover. It has come to be the one thing used as a green manure, especially by our leading orchardists.

At our March horticultural meeting, fine specimens were exhibited. I. H. Ford, a long-time reader of The Farmer, and one of the exhibitors, said that he had an apple orchard in which he had broadcasted ashes, and had cultivated the clover in between rows of corn. At that time, March 30, it was as thick as it could stand and had made a fine growth, which was proven by the plants exhibited. He says it is claimed that a good stand of the clover is equal to fourteen tons to the acre of barnyard manure. Thinks that the Delaware and Maryland fruitgrowers, who use crimson clover fertilized with muriate of potash and dissolved phosphate rock, have solved the problem how to produce the largest and best colored fruit.

A writer in Rural New-Yorker says the reason they are so successful is because they fertilize the clover instead of the crop that follows it. That a simple mixture of chemicals will answer for clover, because it has the power to turn the plain rock and potash into organized forms of fertility.

Who, that ever turned a furrow or dug into the earth, but that is convinced that the soil is a perfect menagerie of microscopic living forms? In studying their nature we learn that they have the habit of locating themselves upon the roots of certain kinds of plants, and especially upon the clovers, peas, beans and other leguminous plants. When once seated upon the roots of a plant congenial to them, they cause the formation of little enlargements or tubercles in which they live, drawing nourishment from the plant, and in return give to it compounds of nitrogen which they are able to produce from the free nitrogen of the air. It has well been compared to two neighbors changing work, each doing the work he is best fitted to do, and then swapping the products of their labor to the mutual advantage of both.

The clover with its leaves outspread in the free air and fitted to utilize the bright sunshine as a source of power, breaks down the molecules of carbon dioxide, forging them into such compounds as it needs; but, in its efforts to utilize to the best advantage all of its surroundings, it gives over the first rough forging of nitrogen into food to the lowly organisms upon its roots, and sends down to them so much of such compounds as they need in doing their part of the work.

Examine the roots of the clover and you will find upon their surfaces many little lumps or tubercles. This is where the bacteria have located themselves. It is the same upon the roots of peas, beans, or any other leguminous plant.

Many a careless farmer, not under-

standing how this supply of nitrogen is kept up, will year after year grow wheat or other crops which are able only to consume the nitrogen, but add only a trifle to it, so the supply is soon exhausted and he fails to get satisfactory return for his labor. But it will at once be seen that an understanding of the workings of these bacteria, places in the hands of every farmer a means completely under his own control, whereby he can at any time cause to be drawn directly from the atmosphere the free nitrogen of the air, and have it fixed in the soil of any field he may wish to enrich.

That our farmers are becoming awake to this fact, is proven by the widespread use of crimson clover as a fertilizer. It is sown in this locality the last of July or fore part of August, at the rate of 12 to 14 pounds to the acre.

Oceana Co., Mich. J. M. WILLSON.

### HOW TO BUY NURSERY STOCK.

To the average farmer who is intending to set out a new orchard, or wishes to test a new variety, the following suggestions as to how to buy nursery stock will be of interest. They were published in Green's Fruit Grower recently:

Many persons all over the country are doubtless unable to decide where and how to buy their trees and plants. Some want only a few little things that seem hardly worth bothering with; others want five or ten dollars' worth; while some want thousands of trees and plants to set out for commercial purposes. As I have been a tree planter, a tree agent and a nurseryman at different times, and, as I am at present engaged in none of these occupations, nor am I beholden to any nurseryman, it may not be out of place for me to offer some thoughts on the general subject of how and where to buy nursery stock.

There are certain things that all those who plant need and should require and demand regarding the nursery stock they buy. One is, that the trees and plants should be true to name. Reasonable allowances should be made for unintentional mistakes on the part of the nurserymen, but it is no light matter to buy and plant, and after years of labor and waiting to find some other varieties instead of those supposed to have been planted. It often happens that the planter does not know as well what kinds to plant as the nurseryman, and it would be well in many cases to permit substitution if not absolute selection of varieties by the nurseryman. This, of course, can safely be confided only to the most intelligent and trustworthy nurserymen. In fact, it is folly to deal with any other. If so disposed, they can cheat the sharpest expert in varieties. That cheating is done in many cases, we cannot deny; but, as a rule, nurserymen are both reasonably intelligent and honest—some are eminently so.

Another thing that should be required is that all stock should be thrifty and free from diseases and harmful insects. This condition is entirely possible; for proper cultivation, vigilance and the application of remedies and preventives will bring it about. The infection of one's premises with a pestilent and infectious disease or insect like peach yellows or San Jose scale is a just cause for legal prosecution for damages, and there should be some way to settle the blame and costs where they justly belong—on the nurseryman.

### NORTHERN OR SOUTHERN GROWN TREES.

Many persons have asked themselves whether they should plant trees grown near home or in a distant nursery. If the planter lives in the South should he send North for his trees and plants, or, if he lives North should he send South, and the same regarding the East and West. If there was well-grown and reliable nursery stock near me I would plant it, but if not, then I would not be afraid to send across the continent for what I wanted. If the right varieties are chosen, it does not matter so much in what climate the trees are grown, provided the wood and buds are well matured. If the packing is done properly there need be little fear of damage by long shipment except in case of freezing weather. This should always be avoided if possible. I prefer to plant Southern grown stock in the North always in the spring that it may not have to undergo the trying times of winter before a season of growth has enabled them to prepare for it. By the next fall any possible tenderness will have disappeared; taking for granted that the variety is one suited to the

climate where planted. Northern-grown trees may be planted in the South at almost any time with little danger of harm from the change if the varieties are right. There is less danger of making mistakes in eastern and western exchanges; although there should be good judgment exercised in setting suitable kinds on the prairies and never in the fall there. Getting the stock in the fall and burying it in moist earth until spring is often better than risking the uncertainties of transportation in the rush of spring and spring work.

### BIG OR LITTLE NURSERIES.

Another query may be, should we buy from big or little nurseries? Will a big nursery give our little orders as good attention as a small one? Which is the more likely to give us the better stock and the nearer true to name? From many years' experience I would say that the size of the nursery makes no difference. Some of the largest nurseries in America, and that have extensive wholesale and retail trade, are as careful to give a dollar order as much care as a thousand dollar one, proportionately. They have the work thoroughly systematized, and everything is scrutinized by competent persons from the selection of the stock for propagation to the mailing of the smallest order. Some of the smallest nurseries will do equally well with all orders, large or small, up to their capacity to fill them. On the other hand, some of the biggest and best advertised nurseries in the country are so wretchedly managed and the proprietors of some of them so thoroughly dishonest, that they are undeserving of patronage, and the wonder is that they manage to find people enough that are willing to entrust their orders to them. There is then all sorts of experience with all grades of nurseries as to size, and that experience must be the guide to the general planter. One hint let me drop—not to be unreasonable with the nurseryman. He does not make the seasons, nor does he control the transportation companies. Another thing: Do not send him a bank check or draft for a trifling sum, for it costs him 10 cents exchange in almost every case, and this is a heavy tax on a small sum and multiplied by hundreds, as it often is, cuts a big hole in his profits. And let me assure you that nursery profits are not large nowadays. TREE AGENTS AGAINST DIRECT DEALING.

The tree-agent has been discussed, riddled, misrepresented and his case truthfully stated until there is little more worth saying. He is a fixity. He is here to stay. He cannot be stopped from traveling in this free country even if it were fair to stop him. There are all kinds. But I am sorry to say it, the average tree agent is very often partly composed of both ignorance and dishonesty. Some are green boys going about to earn something by repeating a rig-a-ma-role that has been taught them. Others are old crafty sinners. And many more are good, honest, sensible men who will do the fair thing and know how to do it. My advice is to the buyer, if you know of a good nurseryman within half a day's drive, go, and get directly from him what you can of what you want. But do not think that any sort of thing near home is better than what you might get from a thousand miles distant. Use business judgment. It is not the cheapest or the dearest that is the best, for poor trees and plants are often sold very high and very good ones sometimes very cheap. A good honest and intelligent agent of a reliable nursery, will, in some cases, serve your purposes better than anyone else, but he will usually charge you more than you would have to pay for the same direct of a nursery that has no agents. In any case, study the situation and the catalogues carefully and know something of the prices of various dealers and nurserymen at home and at a distance before you buy.

For The Michigan Farmer.

### THE GARDEN IN AUGUST.

August is a trying month in the garden, many of the annuals gone, or dried up, and the soil baked hard with sun and wind. But nature has provided, of course, for the time and situation, and a bed of portulaca will blossom away, with their hundreds of bright flowers, be the sun ever so hot and no rain. Petunias, too, are good companions. We ought to have a bed of scarlet zinnias if for no other reason than to place on the supper table in late fall. The lamp light brings out the intense colors, and they will stay

pretty a long time, even if placed close to the lamp. But asters ought to take the prize for the garden in August. They now come so double, and in such beautiful shades that they almost take the place of chrysanthemums, and are not half the trouble. The new white aster as a pot plant is very desirable for the window, and by pinching off the buds in August the time of bloom can be extended until nearly Christmas.

The house plants ought to be growing nicely, potted, and in partial shade. It takes a wise judgment to select for the window, keeping in mind the base-burner and other foes to their well being. Here are five foliage plants that weather the most adverse circumstances, but with a little care will make the windows a delight all winter: The abutilon, souv. de bonn, with its white-margined leaves, pretty without its scarlet flowers, swansonia, a fern-like leaf, grevillea and farfugium grande. The last, sometimes called the leopard plant from its curiously spotted leaves, makes the quaint plant in the collection. An old friend, cyperus, is always ready for a place in the center of the tea table, and if put in a fancy vase, is really pleasing. The end of the summer ought to find the garden in neat condition, weeds out as well as past flowering stems. As the beds are emptied, dig them up so that the fall rains can soften and enrich. Also look over the flower pots and get them ready for the bulbs you ought to feel you must have in September. If new ones are needed, send for paper pots. The plants take to them, and that disagreeable mold does not collect.

Wayne County.

ANNA LYMAN.

### HORTICULTURAL NOTES.

Britton & Co., fruit dealers, make the following statistics of the peach crop: Connecticut, 300,000, against a comparative failure last year; New York, 2,000,000, against a failure last year; New Jersey, 3,000,000, against 1,200,000 last year; Pennsylvania, 500,000, against a comparative failure last year; Delaware, 500,000, against 3,000,000 last year; Maryland, 500,000, against 4,000,000 last year; Georgia, 200,000, against 1,500,000 last year; Michigan, 200,000, against 2,000,000 last year; Ohio, 400,000, against 200,000 last year; Arkansas, 3,000,000, against 1,000,000 last year. The above is based on one-half bushel baskets, and shows a total of 10,600,000, against 13,900,000 last year.

The Kansas Experiment Station, Manhattan, Kan., has recently issued a bulletin on apple grafting that contains much interesting information to the apple grower. The conclusions are summed up as follows: First, that whole root grafted apple trees are of no greater value to the buyer than trees grafted on piece roots of five, four or two and one-half inches in length. Second, that grafting above the crown of the seedling stock secures in a tree no valuable quality which is not secured by grafting below the crown. Third, that the use of whole roots or long pieces may offer some slight advantages to the nurseryman, but that these will not compensate for the extra labor and expense. Fourth, that the greatest uniformity in growth is secured by use of grafts that secure an early rooting of the scion above the union.

What has been commonly known here as "little peaches" may prove a disease of no less importance than that of yellows. This disease of the peach has been known in this section four or five years, but its ravages have only been marked during the past year or two. Prof. L. R. Taft, of the State Agricultural College, spent a couple of days in the fruit belt this week, and in the vicinity of Mack's Landing whole orchards were found to be going with this disease. Prof. Taft states that the disease is entirely different from the yellows and not like rosette, which does not exist in this State. He took back with him buds from diseased trees and will bud them on healthy stock, to see if the disease is contagious. The safest way to treat trees that show this disease is to give them the "yellow cure"—dig out and burn, root and branch.—Fennville Herald.

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POTATO CULTURE IN FRANCE.

From Our Paris Correspondent.

Paris, July 24, 1897.  
With May Day all potato planting ends. The cultivation of this esculent is now ranked among the "salvation crops." Within the last ten years the whole system of potato culture has changed. It is useless alluding to the past. The points that farmers now observe are to have a humid but not wet soil, in fair heart and of good tilth. In September or October, about 15 to 20 cart loads or tons of farm-yard manure are plowed in. During early spring the grubber breaks up the winter crust and kills off incipient weeds. The tubers are then planted and the soil receives a top dressing of superphosphate, slag powder and nitrate of soda. As soils are naturally supplied with sufficient potash, if the latter be found to be wanting, sulphate of potash is preferred to kainit; the latter is charged with deteriorating the flavor of the tuber. Particular attention is paid to the selection of the seed tubers; those of small size and whole are preferred. Some cultivators who can lift 14 to 15 tons of tubers per acre, have, when the crop is being dug, women to specially select tubers of the size required, from roots with numerous potatoes attached. The selected are carefully stored in a dry and well-ventilated cellar till required for planting. There is a tendency also among reflective growers to employ a new variety of potato every third or fourth year. There are farmers who raise—if near towns—early as well as late potatoes. The former if precocious can prove very remunerative, while being removed early, the land can be utilized for a catch crop, aiding the latter by some fertilizer; or if sown with tares, etc., and plowing down during autumn such will form a capital manure. A very large breadth of land for autumn potatoes has been devoted this spring to the tuber, which is becoming invaluable for cattle rations or for the distilleries and fecula mills.

Prof. Grandeaun recommends, from the result of a series of experiments extending over several years, that the fertility of the soil for the growth of potatoes and wheat, the two crops he tested, can be relatively secured by heavy dressings of slag powder; this will afford time for its phosphoric acid to act upon the other alimentary minerals of the soil. M. Grandeaun seems to hint that it is rather taken for granted too frequently, the soil contains in itself a sufficient natural supply of potash; this is not always true. He finds that in the case of potatoes the crop suffered by acting upon that popular assumption. True, the soil he operated upon was poor in phosphoric acid and nitrogen; it forms part of the Bois de Boulogne.

The potato disease has made its appearance in several departments and so added to the agricultural miseries of the season. Beyond doubt the disease has been propagated by the seed tubers, as the parasite—phytophthora infestans—has remained in a latent state even where the tubers were the most carefully preserved, either in cellar or silo. The disease or virus in the fungus state, is known as mycelium or fungus—a thread-like substance. Placed in conditions favorable to its development, heat and humidity, it produces what have been called conidies, or organs of reproduction, and which are wafted by the wind to propagate the malady. These conidies having found a suitable bed, send out other small bodies called zoospores, or seed, that like a tube of germination, penetrate the epidermis of the leaf and stem. The disease soon appears, and spreads over the entire field and, later, over a whole district. The leaves soon display small brown spots, fade, and dry up. On the under part of the leaf, and round the brown spots, is a whitish ring, composed of a fine down; it is therein the conidies are developed and propagated by the air currents. The infection of the tubers is due to their contact with the conidies or the zoospores, by descent during growth, or from the contact with the parasite, when lifting the crop. The mycelium remains latent; but it can promote also the rapid decomposition of the tubers in cellar or pit.

M. Jansen conceived the idea to "lock out" the enemy by earthing up the stems of the potato plant before coming into flower, that is to say, in June, when the blight generally sets in. He collected conidies, and counting them by means of the microscope, placed 100,000 of them in a small glass tube filled with water. He had other tubes filled with ordinary soil of varia-

ble thickness. Then he poured the solution of conidies over the soils, and counted in the drops of water that filtered out, the number of parasites that the soil had retained, that is, prevented to pass. One inch of soil stopped 6,289; two inches 598, three inches 18, and a soil depth of four inches allowed none of the conidies to descend. Conclusion, a thin coat of earth completely averts the germs of the potato disease. M. Jansen now applied the lesson; he earthed up the potato stems, sloping them a little so as to allow of no fissures between them and the soil. The earth was moulded up to five inches, so that when settling down it would contract to four inches. Fields thus treated were certainly less attacked, but it was found that the yield of potatoes was notably diminished. Between the parasite of the potato and that peculiar to the vine—peronospora viticola—there is a close relationship; the trials now tend to treat the fungus of the potato in the same manner that has been so successfully applied to the vine.

There is a class of potato seed farmers in France, who devote all their intelligence, not only to raise seed potatoes, but to produce new varieties from crossings, when the plants are in flower. It is a delicate and ingenious industry, but highly remunerative. Some growers have 30 or 40 different varieties raised by themselves, where improved quality was secured for tubers. At present the common aim is to draw a sharp line between the table and the industrial and cattle potato. Prof. Aime Girard has established the feeding and fattening importance of the industrial potato, and at the cattle shows he is able to exhibit bullocks fattened solely on the tuber that win not only praises from the butchers, but better still, top prices. An intimate friend of the celebrated chemist told me a few days ago that he is conducting experiments with cattle potatoes that will excite widespread interest. Messrs. Condon and Bussard study the amelioration of the potato from the comestible point of view. Placing the skin, which forms only a small part of the weight of the tuber, outside their experiments, they have found that the body of the tuber consists of three distinct layers, of different densities, as revealed by the "X-rays," the exterior layer being the most dense. From a microscopical and chemical examination of several matured and freshly gathered tubers, they show that the exterior layer is richest in fecula, but less so in nitrogenous matters, than the central layers, while the most central, which is also the most aqueous layer, is the poorest in fecula, but the richest in nitrogen. Upon 34 varieties of potatoes they found that their culinary value was in proportion to the percentage of nitrogenous matters to the fecula, and that that percentage can range from 25 down to 8. Besides its flavor, the potato has another property of great importance—its resistance, when cooked in water. When thus cooked, the tuber becomes soft while retaining its shape, or breaks, swells, and "laughs," to use a homely expression. The cause of this resistance against breaking during cooking, or non-resistance, is not known; it is not due to the swelling of the starch or fecula in the cells, nor in the thickening of the coats of the latter; it is owing to the presence of a greater proportion of coagulatory matters. But there is also another category of substances that can intervene and maintain the mutual adherence of the cells—albuminous matters that during the cooking of the potato coagulate and imprison the fecula, as the gluten of wheat, in the baking of bread, induces adhesion of the starch, and so gives body to the loaf.

Aware then of the different principles in the tuber, of their distribution therein and composition, the potato seedman or cultivator will naturally select the varieties that will suit his aims. Does he desire the industrial variety? He will select cuttings in the exterior layer, where the fecula is very developed; if he wants table potatoes of high value, he will choose tubers whose central layer is very marrowy. And these conclusions are borne out in practice. Thus the best potatoes for frying—the principal manner they are consumed in France—with fine and agreeable flavor, are the Belle de Fontenay, Marjolain, Fleur de Percher, Hollande—red and white—Violette, etc.; they contain from 17 to 25 per cent of nitrogenous matters per 100 parts of fecula, and sell at 90 francs per ton. The Victor, Saurisse and Flocon

de Neige have but 16 to 17 per cent of nitrogenous substances, their market price is from 60 to 90 francs per ton. The Champion, the Beauvais, the Magnum Bonum and Richter's Imperator contain only 8 to 16 per cent of azotous substances, and sell at from 40 to 50 francs per ton; but they produce heavy yields, are rich in fecula, hence, capital for industrial uses, and the alimentation of stock.

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All communications relating to the organization of new Clubs should be addressed to F. D. Wells, Rochester, Mich.

### THE MICHIGAN FARMER EXCURSION.

Nearly thirty Farmers' Club workers from all portions of the State gathered in Detroit on the 23d inst. and took passage on the Steamer Alpena, in company with many more of their fellow farmers and friends, for the First Annual Michigan Farmer Excursion, with Mackinac Island as the objective point. A more thoroughly enjoyable and profitable trip of like magnitude would be hard indeed to conceive. Not an accident occurred, nor was a disappointment experienced from the time the magnificent "City of Alpena" left the Detroit docks on Monday night to that of its return on Thursday morning. The weather was ideal. The crowd was a unity of good fellowship. The boat officials never for a moment forgot the comfort of their passengers. The river and lake never looked more beautiful. And the atmospheric conditions conspired to render visible every beauty within the horizon's boundaries.

The island, with its hundreds of historic associations, was never more attractive than on Wednesday morning, when from the steamer our party first spied its shores. The view from the boat of the grand old island, rising hundreds of feet from the beautiful shores, nature's ideal fortress, strengthened and beautified by human art, with its historic fort and ancient landmarks, was worth many times the cost of the entire trip.

The arrangements upon the island were so complete that in the three hours spent there every point of great interest could be visited at a nominal expense under the direction of a trained guide. To visit those historic landmarks, where every nook and corner was replete with suggestions and associations of great events, which played no small part in shaping the destinies of this continent, and from the heights to view the magnificent scenery, stretching scores of miles in every direction, each point vying with the others in its fascinating charm, all conspired to make memorable in the life of every beholder the morning hours of that beautiful summer's day.

But best of all was the good fellowship everywhere manifest among our party. Ever changing groups of people gathered here and there, and happy stories mingled with weighty discussions of many a topic of vital importance to us as farmers and as business men. The interchange of ideas thus secured was of incalculable benefit from a business point of view to every participant, and to every listener. A few hours each day of the trip thus spent in discussing freely and fully the general business situation, with such men as M. J. Lawrence and his associates; in talking over the condition of Michigan agriculture and the Michigan agriculturist; in getting valuable pointers on successful stock-feeding, stock-breeding and crop-growing from the scores of practical and successful farmers among the party—all this could do no less than to leave a lasting impress upon every person who enjoyed its benefits. And even though the value to be derived from the trip be measured solely from the stand-

point of ultimate financial profit, yet we venture the prediction that the few dollars invested will be returned many fold before another year shall have passed.

Let the thousands of farmers of Michigan who lost this opportunity for mental, physical and ultimate financial profit ponder well these unquestionable facts. If this is done we feel assured that the largest boat that sails the lakes will not be able to accommodate the crowds that will next year congregate at Detroit to take advantage of the Second Annual Michigan Farmer Excursion.

### SALARIES OF COUNTY OFFICERS.

The October session of the Boards of Supervisors is near at hand and it behooves the people to be watchful of their interests. One year ago in over forty counties of the State, substantial and just reductions were made in the salaries and incomes of some of the county officers. If we mistake not many of these county officials will put up a strong fight to have their incomes placed back at the old figures. The people should be on their guard. Every farmers' club and every Grange should renew their activity along these lines. To be caught napping now means the loss of all vantage ground already gained, and gained only after the long and hard struggle of a year ago.

Let every supervisor be made acquainted with the views of his constituents regarding this matter. Let the office holders know that the people mean business, and that their efforts will cease not until public business is placed very much more nearly on the same basis as private business.

### "ONE HUNDRED NEW CLUBS BEFORE APRIL 1ST."

The above is our motto for the next few months. It means work for every Farmers' Club worker in Michigan. It means hard work for some, but we have every confidence in its performance. The best thing about our organization is the absolute freedom of the local clubs. But this very freedom inspires a loyalty unknown to machine methods. We have nothing but this loyalty of the individual clubs and individual members to depend on, yet we fear not the result. The same forces which have made the Association a success in the past still exist, and can safely be counted on for the future.

### MONROE COUNTY CLUB WORK.

Two new clubs are reported from Monroe County. The good work of E. L. Lockwood, J. W. Morris, Mr. Nicholls, and others in that county is beginning to make itself manifest. We predict that Monroe County will soon rival Jackson and Oakland Counties in Farmers' Club work.

### THE MICHIGAN AGRICULTURAL COLLEGE.

#### A HISTORY OF ITS FOUNDING.

(Paper read before the Highland and Hartland Farmers' Club, by Mrs. C. B. Buck, and published by request of the Club.)

In the fall of 1865, if my memory is not at fault, a gentleman remarked to me "If I had a son to educate I would educate him at the Michigan Agricultural College." Education is a broad term, implying the improvement of mind, soul and body. It is not acquired alone from books and schools, but from what we see, hear, think and feel. These influences mould us, for as the mind is stored the sensibilities too will be cultivated. "Whene'er a noble deed is wrought, Whene'er is spoken a noble thought Our hearts in glad surprise To higher levels rise."

We will glance over our educational system: It is largely a product of the last century. Our older American colleges were nearly all established by the church, Harvard, Yale and Princeton

in the North; William and Mary's and others in the South—all having a precedent in the old world. The preachers in those days were the learned men and therefore the only teachers. Naturally enough as those schools were founded by religious societies and taught by those who had been prepared for the ministry we find the colleges devoted almost exclusively to the teaching of theology, classics and philosophy.

The students of those schools were the few who expected to become preachers or follow some learned profession. It was not supposed at that time that anything more than the rudiments of an education were of any use to the man who earned his bread by the sweat of his brow (and the education of woman was not dreamed of).

After the colleges were established, preparatory schools were necessary to prepare students for these institutions. Then eastern academies sprang up which adopted courses of study along the classical lines in order that students could enter the classes in the colleges. The high school followed, providing for many a finishing school. All classes of these institutions had their patrons, but none taught the farmer's boy he had a work to do. Something must be done—some method tried to keep young men from rushing to occupations that they were naturally unfit for.

The State Agricultural Society in 1849 was dominated by men of remarkable force, originality and far-seeing statesmanship. They saw that science and education were being applied to all other industries. They realized that the time would soon come when farmers must apply the same scientific knowledge and skill that people in other industries were using or they would fall behind in the onward march. This resulted in the establishment of Michigan's Agricultural College forty years ago. There was no school of this kind in this country. About this time colonies had been started in various parts of the United States by overcultured men and women who sought in farm life and work the cure for all evils.

The first formal action concerning a college was taken in 1849 on a motion of Bela Hubbard, of Detroit, a member of the State Agricultural Society, to memorialize the Legislature to take such legislation as might appear necessary or expedient for the establishment of the Agricultural College and a model farm. Mr. Hubbard, in his memorial, delivered a scholarly speech which treated the whole subject of agricultural education in the United States. This memorial drawn up by Bela Hubbard went to the Legislature, in consequence of which Article XIII, of the State Constitution of 1850, provided for an agricultural school, which might be made a branch of the State University. This last proviso became the source of a long and bitter contest. Both the University and Normal School sought to obtain the favor of the Agricultural Society and established courses and lectures on agricultural subjects looking to the securing of the prospective appropriation.

After much agitation in 1852 a committee from the Agricultural Society was appointed to urge upon the Legislature the propriety of carrying into immediate effect the article of the constitution relating to the establishment of an agricultural school. This article recommended that the school be placed under the control of the University of Michigan Regents as a branch of the University, but that the school and farm should not be established in close proximity to any existing school. At the following Legislature no action was taken.

In 1854 the Agricultural Society again began to agitate the question, and it was resolved that an Agricultural College should be separate from any other institution, and with this idea incorporated another memorial was drawn up and forwarded. This was acted upon by the Legislature of 1855, and a money and land appropriation made. Much credit is given to Prof. Holmes, of Detroit, the first secretary of the Board.

The law organizing the college fixed the acreage of the farm to be not less than 500 acres nor more than 1,000 in one body, within ten miles of Lansing, and to cost not over \$15 per acre. The amount of money to be paid for teachers was stated, also the division of the school year. The college affairs were put in the hands of the State Board of Education, then the governing board of the Normal School. Under this law the executive committee of the Agricultural Society located the college by buying of H. R. Burr, of Lansing, a tract of wooded land (except three acres

cleared) 676 acres within three and a half miles of Lansing. The Board of Education approved the choice and proceeded to clear and build. May 13th, 1857, the college was opened with dedicatory ceremonies and the first college on this side of the Atlantic began. No man knew what such a school should be.

The hundreds of excursionists who this week have been sight-seeing, viewing, and we earnestly hope, carrying away pleasant memories, will no doubt instill new life into our college. While the eye wanders through scene after scene of beauty, let us for a moment glance back to August, 1857. Those of us who remember new land where the timber is cut, stumps everywhere, girdled trees, tangles of brushwood, the rail fence zigzag in shape, have some idea of the labor which has caused this change. In 1861 the Legislature provided for a State Board of Agriculture to consist of six members beside the Governor of the State and President of the College. The course of instruction was made four years in length, studies to be taught were specified and the college for the first time given authority to confer degrees. March 15th, 1861, the State Board of Education gave its trust into the hands of the State Board of Agriculture.

The college is constantly carrying out the design of its founders in offering to the young people of Michigan, girl as well as boy, an opportunity to acquire a thoroughly practical education at a very small cost. The question for us to decide is whether we intend to advance and keep up with other callings or drop back where our grandparents stood. The college asks but little financial aid but the moral aid you each can give it will help it much. Are you ready to help it on or will you give your aid to crush what other States are trying to imitate?

Then let us with pride say: "No obstacle will I or mine cast in the way to obstruct the progress of the pioneer agricultural school of America."

### CLUB WORK AND METHODS.

#### THE WASHINGTON FARMERS' CLUB.

This club has been in existence for a little more than three years. It was organized in the usual manner. A company of friends and neighbors met at the home of one of their number, elected officers and made arrangements for future meetings once a month. From this small beginning the club has rapidly grown, till it covers a territory fifteen miles long and half as broad.

The officers consist of a president, vice-president, secretary and treasurer, who are elected for one year. The regular committees are appointed for three months, which has the effect of distributing the burden of preparing the program and doing the other work necessary to the welfare of the club.

The regular day for meeting is the first Wednesday of the month. But this date is not arbitrary and is frequently changed for the convenience of members.

The meetings are held at the homes of members, the host having been selected from the volunteers at the previous meeting, a plan which has thus far proved satisfactory. It has rarely happened that there have not been several members to offer their services as entertainers.

At mid-day the club takes possession of the house decided upon, each family carrying a lunch basket containing enough for all its members and twice as many more, so as to make sure that there shall be nothing wanting should some come unprovided, which rarely happens. The tables are set and after being cleared to the extent human capacity will allow, the dishes are again packed in the baskets and the literary part of the program is taken up. Serving a dinner involves a great amount of labor and the abandonment of this feature has been seriously considered, but up to the present time the hungry element has been in the majority.

The program is of the usual order, consisting of essays, declarations, readings and papers for discussion, with question boxes and "current events" occasionally introduced to give variety. Most important of all are the discussions following the papers, in which the president is expected to see to it that all are called upon to express an opinion. In these discussions the Association question for the month plays an important part, the other papers being in most cases upon some farm or household topic fitted to the season.

The number of members is unlimited, and the plan which has been followed



for adding to the list could hardly be improved upon for effectiveness and simplicity. The host has been allowed to invite the representatives of eight families, and these are requested to sign the constitution at the close of the meeting, thus becoming members. The result was a rapid growth at first, but less than half the number on the list ever became active workers. The number has now been considerably reduced by erasing the names of those who have not paid assessments within a specified time. But clubs of this kind are rather unwieldy, and it is a mooted question whether two smaller clubs would not be more satisfactory than the present large one.

Joint meetings are held with other clubs in the vicinity; also with the neighboring Granges. Many of the most active members belong to the latter organization.

Oakland Co.

F. D. W.

#### THE OXFORD FARMERS' CLUB—ITS WORK AND METHODS.

The Oxford Farmers' Club was organized in March, 1887, and has since held regular monthly meetings, with scarcely a failure to have enough present to make an enjoyable and profitable meeting. During all that time the interest in the meetings has kept up in a most satisfactory manner, and the remark, "What is the secret of our continued interest and zeal in club work?" is frequently heard from our members, no two of whom would give exactly the same answer. We have held several successful two-day institutes and annual picnics, at which governors, congressmen, supreme and circuit judges and ministers of the gospel have addressed us, besides prominent farmers.

Our by-laws provide an order of business for our meetings as follows:

First. Opening exercises, which usually consist of singing some well-known song by the members, quite often the national hymn with organ accompaniment.

Second. Roll call. The members simply respond as the scholars used to in the "little old red schoolhouse," or give some maxim or sentiment from some prominent author. This latter practice tends to make people closer observers of their reading, and is an interesting feature of our meetings.

Third. Reading and adopting of minutes of last meeting, which includes not only the business transactions of the meeting, but also a synopsis of the discussion of matters that arise during the meeting, embracing the question for the day and recitations, etc., on the program.

Fourth. Reports of committees. We have two standing committees, an executive and program committee, but have seldom had occasion to use other than the program committee, which is supposed to make a report at each meeting, of the program and place for the next meeting.

Fifth. Bills and accounts.

Sixth. Program.

In the beginning we rented a place in the village to hold our meetings, but soon began the practice of meeting at the homes of members, which we have continued to the present time. The attendance in the village was not good. There was lacking the welcome of host and hostess, and the meetings were never as successful as under our present plan.

From April to September, inclusive, our meetings are held in the afternoon and include supper. For the balance of the year we go before noon, and have dinner together. The family where the meeting is held furnishes the tea, coffee, potatoes and meat. The visitors bring biscuits, cakes, pies, pickles, cheese, etc., as each one happens to feel to do, there being no prearrangement as to what anyone is to bring. And strange to say there is always a suitable variety, in fact, a well-balanced ration in generous quantities. It may not be out of place to add that several of our members have become so portly that their vests have had to be enlarged, but there is not a dyspeptic in our whole membership. There are some objections to having an elaborate meal at each meeting: the time it occupies, the extra work it makes for the hostess, and the few other ladies who help prepare the meal, clear up table and wash the dishes, but the ladies claim that a lunch would make them as much trouble, and so the practice is continued.

There has never been any special effort made to observe any but the most common and necessary of the rules of parliamentary law. The pre-

vious question and other methods calculated to secure an advantage in the treatment of a subject are never resorted to, the apparent views of the majority being acceded to unanimously and without friction. The prevailing sentiment of our members is "that in essentials there should be unity; in non-essentials, liberty; in all things, charity."

J. G. NOBLE.

Oakland County.

#### REPORTS FROM LOCAL CLUBS.

##### THE SOUTH AVON FARMERS' CLUB.

This club was organized in the spring of 1895. Although having aims and purposes similar to its Washington neighbor, it differs from that club in several important particulars, which have had considerable effect upon the membership and the work of the club.

The meetings are held fortnightly in the evening. As a result the young people are in the majority, the older people not finding the evenings to their liking. Instead of spreading over a large territory, with a scattered membership, this club has confined itself to a small area, in which all the members can be easily assembled.

New members are admitted by a vote of the club, three negative votes being sufficient to reject a candidate.

No refreshments are served. This plan was adopted soon after the organization and has thus far been satisfactory. Eating, it was found, took up too much time which could be used to better advantage in other ways, and also necessitated considerable extra work.

The meetings are held regularly on the evenings appointed throughout the year. The programs are of the usual order, consisting of essays, readings, declamations and discussions upon the Association questions; also upon farm topics and questions of national or general interest. The social feature has been subordinate to the more serious part of the program, consequently a large amount of work is done during the year.

In comparing the two clubs it is found that in the Washington Club the social attraction is more than half. The papers read are often such as show careful preparation and a thorough knowledge of the subjects treated. But as the members comprise only a small part of the people in the territory the benefits are shared by comparatively few. In the South Avon Club it is quite different. The papers are prepared on short notice and the work is often hurriedly and imperfectly done, but each one feels under some obligation to help out at every meeting. The former is conservative and offers attractions to the older people, while the latter is active and just the place for the younger people to learn readiness in speaking and writing. Nearly all the people of a community feel at liberty to join such a club, consequently the benefits may be shared by the majority and the tendency to be exclusive is avoided. These differences are probably due more to the time of meeting than to any other cause, which is something to be considered when a club is organized.

Oakland Co.

F. D. W.

##### WIXOM FARMERS' CLUB.

The August meeting was held at the home of Mr. and Mrs. Marshall Johnston near Walled Lake. There was a good attendance and an excellent literary program. The Association question, "The Agricultural College," was discussed at the July meeting, but was reopened at this meeting by D. Gage, who gave a brief history of the institution and explained how means are provided for its support. As a full report of last month's discussion upon this subject has been previously given we will omit further report except to say that the resolutions favoring the College and its work adopted at the last meeting were unanimously reaffirmed at this one.

T. C. Severance gave a paper that was full of timely suggestions and good ideas. His subject was "The Future Work of Our Clubs." He asserted that there is no nobler work than farming, but that the business has fallen into disrepute through causes for which farmers themselves are largely responsible. There are so many who carry on their business in such a shiftless and slovenly manner, neglecting self-culture and social development. Such farmers disgrace themselves and not their occupation. We think none the less of Washington and Jefferson because of the fact that they loved their farms and farm life. He also cited the fact that no class receives so little respect or is accorded so little recognition in legislative mat-

ters or by the commercial world as do farmers. He indicated that club work should be directed toward the rectification of these deplorable conditions, and the attainment of that position of power and prominence which properly belongs to so numerous a class engaged in so noble a calling.

B. T. NICHOLSON, Cor. Sec'y.

Oakland Co.

##### NORTH EAST VENICE FARMERS' CLUB.

The North East Venice Farmers' Club met at the home of Mr. and Mrs. Dexter Bowden in the afternoon of August 12, and was cordially welcomed. All the members tried to do their duty, take a part in the proceedings and have a good time. The club took up the monthly question, "The Agricultural College."

J. Harmon did not know much about it, but thought it was all right.

J. E. Lawcock read an article from The Michigan Farmer indorsing the College, and thought that all sons who could should take a course there.

W. H. White said it was a good thing for Michigan, and that graduates made better farmers, and their influence and the influence of the College reached out to other farmers, and made them do better in their ways and methods. He also said that the six weeks' course in dairying and fruit raising was profitable to any one who might go and take it.

C. Shipman thought the College a grand thing and that even if all the graduates are not farmers, they are only following human nature in going where they can make the most money.

A paper was read by J. E. Lawcock on "The Relation of the School to the Home." He made the point that we should visit the schools more than we do, and that if we cannot visit the school more than once a year we should see that the officers of the board visit it once each term.

J. Harmon thought we should see to the language used on the grounds more than we do, and that it does not contaminate the mind of the child.

Mrs. White thought the women should attend the school meetings.

Mrs. Martin thought there should be one woman on the school board, if not three.

Mr. Lawcock said we might do with one on the board, but three would be putting it on too thick.

B. Augsburg thought it was well enough to have the men hold the offices and to let well enough alone.

W. Persons thought the women should hold the offices equally with the men.

Mr. White said the women should attend school meetings, and he would try to give them an office.

C. Shipman thought some women are as capable as the men to hold office, and they should put themselves on school law, and on other subjects that may come up.

"How to Get the Most Value Out of Straw" was then taken up, and it seemed to be the opinion of the meeting that it should be used as feed and bedding to get it into manure, and then drawn out on the land as quickly as possible. There is no money in it for the farm in the long run to sell it, but sometimes it would pay to burn it up if it is full of foul seed.

We had a bountiful supper out in the front yard, over forty satisfying the inner man. By invitation of Mr. and Mrs. F. Long, we will meet there the second Thursday in September, at 2 o'clock.

Shiawassee Co.

SECRETARY.

##### SOUTH FULTON FARMERS' CLUB PICNIC.

The South Fulton Farmers' Club held a picnic August 8th at the pleasant farm of W. L. Herman. The day was fine and every one came for a good time. At noon the bell called them to dinner and the loaded tables showed the generous hearts of the ladies.

After dinner came a program of songs and recitations. Revs. Carmen and Mudge, of Maple Rapids, gave interesting talks. Rev. Mudge was also called upon to explain the dredging of Maple river, to which he responded.

The members were called to the table again to eat ice cream and cake, which was furnished free, the club members having each helped furnish the material for making it. The club members were all present but five, and, including the neighbors, there were about eighty in attendance.

Gratiot Co.

COR. SEC'Y.

##### State Fair Sept. 6-10—Low Rates to Grand Rapids via D. G. H. & W. R. R.

From Sept. 6th to 10th tickets will be sold at all stations to Grand Rapids and return at one way rates, with fifty cents added for admission to the Fair; return limit Sept. 11th. This will afford an opportunity to visit the second city and Michigan's Great Agricultural and Manufacturing Exhibition at small expense. GEO. DEHAVEN, G. P. A.

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### Attorney-at-Law.

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## CISTERN WALLS.

I have been a constant reader of The Farmer for a number of years and have just read the article on cistern construction.

I am about to build one, and would like to know how thick the wall should be through to hold the water without leaking, and if it would need brick or cement at the back of it? Please answer in next week's Farmer.

Wayne Co. DAVID OLIVER.  
(One or two heavy coats will be sufficient, and our own cistern, built this way, has a wall less than three-fourths of an inch thick.—Ed.)

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